

February 18, 2022

USEPA – New England Attention: Mr. Justin Pimpare 5 Post Office Square – Suite 100 Boston, MA 02109-3912

Attn: Mr. Justin Pimpare, Regional Pre-treatment Coordinator

Department of Environmental Protection M.D.W.P.C. 8 New Bond Street Worcester, MA 01606

Attn: Mr. David Boyer

City of Leominster Annual Report - Industrial Pretreatment January 1, 2021 - December 31, 2021

NPDES Permit # - MA0100617

Gentlemen:

Re:

Attached is the City of Leominster Industrial Pretreatment/Monitoring Program Annual Progress Report as required by the City's NPDES Permit.

If you should have any questions regarding this report, please contact me at (978) 537-5720.

Sincerely,

Robert Chalifoux Plant Manager

RC/kmf
Attachments as stated

cc: Jeffrey Stephens, City of Leominster

Mark Piermarini – City of Leominster

DEP- Division of Water Pollution Control, Boston, MA

CITY OF LEOMINSTER DEPARTMENT OF PUBLIC HEALTH

INDUSTRIAL PRETREATMENT PROGRAM

ANNUAL REPORT

1/1/21- 12/31/21

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Attachments:

- A. Pretreatment Annual Report Summary
- B. Leominster influent and effluent sampling results, 6/2/21 Sample #8153B and 8153C samples from 6/2/21 sample #8154B and 8154C
- C. Laboratory reports for Leominster POTW sludge are kept on file at the Leominster WWTF.
- D. Acute and Chronic Toxicity summary sheets and DMR's.
- E. Local limits reassessment September 2014

#1 UPDATED LIST OF INDUSTRIAL USERS BY CATEGORY

PERMITTED SIU'S

NAME & ADDRESS

Claremont Flock/Spectro Coating Corp.

Scott Dr., Leominster

KeySpan
36 Mill Street
Leominster

QG Printing Corp. 27 Nashua Street Leominster

PERMIT TYPE

High Strength Industrial

Possible Discharge of Oil and Grease, Petroleum Hydrocarbons and Metals

pH adjustment and possible discharge

of silver

CIU'S

There are currently no Categorical Industrial Users permitted to discharge process wastewater to the Leominster POTW.

GENERAL PRETREATMENT

<u>NAME</u>	ADDRESS	TYPE OF BUSINESS
Claremont Flock Corp./ Spectro Coating Corp.	Scott Drive Leominster, MA	Textile Finishing
KeySpan	Mill Street Leominster, MA	Ground Water Reclamation Facility
QG Printing Corp.	Nashua Street Leominster, MA	Commercial Lithographic Printing and Binding

Industrial Users subject to non-categorical standards (403) that were in non-compliance with the following:

Claremont Flock Corporation was in violation for exceeding the local limit for Zinc during self-monitoring in May of 2021.

#2 COMPLIANCE AND ENFORCEMENT ACTIVITIES

INSPECTION AND MONITORING SUMMARY

Industry	<u>Inspections</u>	Sampled
Clarmemont Flock/Spectro Coating Corp.	Announced 8/31/21 Un-announced 11/10/21	Un-announced 9/1/21 Un-announced 11/11/21
KeySpan	UN-announced 6/22/21 Announced 11/10/21	Un-announced 6/23/21 Announced 11/11/21
QG Printing Corp.	Announced 11/29/21 Un-announced 12/20/21	Announced 11/30/21 Un-announced 12/21/21

Spectro Coating Corporation no longer discharges directly to the sewer system. All industrial wastewater generated at Spectro is pumped to the Claremont Flock pre-treatment system. Spectro Coating is still inspected twice per year to verify all wastewater is going to Claremont for treatment.

WRITTEN NOTICES OF VIOLATION ISSUED

Notice of Violations to Claremont Flock Corporation for exceeding local limit for Zinc. Claremont is currently in compliance for Zinc.

COMPLIANCE SCHEDULES ISSUED

None

ADMINISTRATIVE ORDERS ISSUED

None

CRIMINAL OR CIVIL SUITS FILED

None

PENALTIES OBTAINED

None

#3 LIST OF SIGNIFICANT NONCOMPLYING INDUSTRIES

The following is a list of industries required to be published in the local newspaper in accordance with 40 CFR 403.8 (f) (2) (vii):

There were no industries required to publish in the local newspaper for significant noncompliance.

#4 NARRATIVE OF PROGRAM EFFECTIVENESS

The Industrial Pretreatment Program has been successful in eliminating pass-through and interferences and no SIU's were found to be in significant Non Compliance during the Annual Report year.

#5 POTW ANALYTICAL POLLUTANT RESULTS

The following summaries were compiled using the results from the annual 129 priority pollutant scan on Leominster's sludge, bimonthly metals analysis for sludge and annual influent and effluent metals analysis.

INFLUENT POLLUTANT SUMMARY AND LEOMINSTER WWTF ALLOWABLE INFLUENT CONCENTRATIONS FOR INTERFERENCE CRITERIA-ACTIVATED SLUDGE PROCESS

<u>POLLUTANT</u>	1) INHIBITION THRESHOLD mg/l	2) INFLUENT CONCENTRATION mg/l
Arsenic	0.1	< 0.010
Cadmium	1.0	< 0.0040
Chromium	1.0	< 0.010
Copper	1.0	0.042
Lead	0.1	0.027
Mercury	0.1	< 0.00010
Nickel	1.0	< 0.010
Silver	0.25	< 0.010
Zinc	0.3	0.070
Total Cyanide	0.1	< 0.010

- Data from "Guidance Manual on the Development and Implementation of Local Discharge Limitations Under Pretreatment Program", USEPA, December 1987, p. 3-44.
- 2) Sample results from a flow proportional 24-hour composite and grab samples taken on Leominster POTW influent 6/2/21. Complete lab report attached. Sample # 8153B and 8153C.

NR - Not Run

SUMMARY OF EFFLUENT SAMPLING RESULTS VERSUS WATER QUALITY STANDARDS

POLLUTANT	1) WATER QUALITY CRITERIA ug/l	2) EFFLUENT CONCENTRATION ug/l	3) EFFLUENT FLOW ADJUSTED ug/l
	100	~10	2.90
Arsenic	190	<10	
Cadmium	1.1	<4	1.16
Chromium	11	<10	2.90
Copper	12	<10	2.90
Lead	3.2	<10	2.90
Mercury	.012	< 0.1	0.029
Nickel	160	<10	2.90
Silver	.12	<10	2.90
Zinc	110	<10	2.90
Total Cyanide	5.2	<10	2.90

- Data from "Guidance Manual on Development and Implementation of Local Discharge Limitations Under the Pretreatment Program", USEPA December 1987, p. 3-39. Water Quality Criteria adjusted for North Nashua River hardness of 50 mg/l as CaCo3.
- 2) Sample results from flow-proportional 24-hour composite and grab samples taken on Leominster POTW effluent 6/2/21. Complete lab report attached, sample #8154B and #8154C.

Design Flow

NR = Not Run

^{*} Effluent concentration flow adjustment using level of detection.

SUMMARY OF POLLUTANT ANALYTICAL RESULTS FOR LEOMINSTER POTW SLUDGE

		•			20111 0	00202
Pollutant	/ 2		29			
	mg/kg	mg/kg 3/8/21	mg/kg 5/6/21	mg/kg 7/8/21	mg/kg 9/2/21	mg/kg 11/4/21
	1/6/21	3/0/21	5/6/21	//0/21	9/2/21	11/4/21
Antimony			<37			
Arsenic	<58	<87	<74	<87	<43	<41
Beryllium	<2.9	<4.4	<3.7	<4.3	<2.5	<2.0
Cadmium	<5.8	<8.7	<7.4	<8.7	<4.9	<4.1
Chromium	28	22	37	40	32	46
Copper	250	210	250	280	210	370
Lead	16	<13	13	<13	15	20
Mercury	<0.74	<0.68	<0.56	<0.71	<0.41	<0.43
Nickel	<16	<17	<15	<17	<9.8	14
Selenium			<74			
Silver			<7.4			
Thallium			<37			
Zinc			340		300	
Cyanide	<8.9	<670	<11	<11	<6.1	<5.6
%TS	5.52	3.69	4.51	3.72	7.46	7.75
Acetone			<130			
2-Butanone (M			<53			
1,4 - Dichlor			<2.6			
1,1 - Dichlor		е	<2.6			
p-Isopropylto	tuene		<2.6			
Naphthalene			<5.3 <2.6			
N-Propylbenze Toluene	ine		37			
1,2,4 - Trime	thulhong	one	<2.6			
1,3,5 - Trume			<2.6			
M + P Xylene	CILY LDCLID	GII C	<5.3			
O-Xylene			<2.6			
Total Phenols	ı		<7.5			
Chloroform			<5.3			
Cis-1,2-Dichl	oroethyl	ene	<2.6			
MTBE			<2.6			
Tetrachloroet	hylene		<2,6			
Bis(2-ethylhe		late	8,6			
4,4-DDE			<0.86			
4,4 DDT			<0.56			
3/4 Methylphe			700			
Methly Acetat	e		43			
Molybleum			<87			
Methylene chl	oride		<15			
Barium						
Sulfur					E 700	
Aluminum					5700	
Free Liquids						

All laboratory reports are on file at the Leominster WWTP.

SUMMARY OF QUARTERLY ACUTE AND CHRONIC TOXICITY TESTING OF THE LEOMINSTER POTW EFFLUENT

	Result	Permit Limit
1st Quarter, 2021		
LC50 48-hr Acute - Ceriodaphnia NOEL 7 day Chronic - Ceriodaphnia	>100% 100%	100% 43.5%
2nd Quarter, 2021		
LC50 48-hr Acute - Ceriodaphnia NOEL 7-day Chronic - Ceriodaphnia	>100% 100%	100% 43.5%
3 rd Quarter, 2021		
LC50 48-hr Acute - Ceriodaphnia NOEL 7-day Chronic - Ceriodaphnia	>100% 100%	100% 43.5%
4th Quarter, 2021		
LC50 48-hr Acute - Ceriodaphnia NOEL 7-day Chronic - Ceriodaphnia	>100% 100%	100% 43.5%

Copies of summary sheets and DMR's are attached.

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SUMMARY OF COPPER RESULTS FOR INFLUENT AND EFFLUENT
WITH PLANT PERCENT REMOVALS

Date	Influent Flow MGD	Influent Cu ug/l	Influent Cu lbs/d	Effluent Cu ug/l	Plant % Removals	Effluent Cu lb/d
1/0//01	9.60	-	3.16	17.0	61.4%	1.22
1/06/21	8.62	44.0	1.80	10.0	75.6%	0.44
2/03/21	5.25	41.0		36.0	15.1%	2.63
3/04/21	7.45	42.0	2.24		13,1%	
3/10/21	6.65	NR	NR	8.2	55.604	0.45
4/07/21	6.68	41.0	2,28	10.0	75.6%	0.56
5/05/21	10.75	34.0	3.05	10.0	70.6%	0.90
6/02/21	7.08	42.0	3.48	10.0	76.2%	0.59
6/09/21	5.76	NR	NR	12,2		0.59
7/07/21	7.17	39.0	2.33	10.0	74.4%	0.60
8/04/21	5.01	48.0	2.01	10.0	79.2%	0.42
9/01/21	12.02	56.0	5.61	10.0	82.1%	1.00
9/08/21	7.45	NR	NR	8.0		0.50
10/6/21	8.92	39.0	2.90	10.0	74.4%	0.74
11/3/21	9.26	41.0	3,17	10.0	75.6%	0.77
12/1/21	5.87	46.0	2.25	10.0	78.3%	0.49
12/15/21	6.43	NR	NR	11.1		0.60
Average	6.87	43.1	2.91	13.14	66.8%	0.86
Minimum	4.60	34.0	1.80	8.00	15.1%	0.42
Maximum	13.80	56.0	5.61	36.0	82.1%	2.63

NR - Not run

NPDES Permit limits; 50.3 ug/l Daily Max, 32.3 ug/l Monthly Average

#6 DESCRIPTION OF INTERFERENCE AND PASS-THROUGH

There were no instances of Interference or Pass-through during the Annual Report year from permitted industrial users in the City of Leominster.

#7 INVESTIGATIONS INTO INTERFERENCE AND PASS-THROUGH

During the annual report year, the Leominster Facility experienced no interference or pass-through related to industrial discharges.

Also, there were no permit violations during the Annual report year.

#8 MONITORING TO DETECT INTERFERENCE AND PASS-THROUGH

We continue the monitoring of copper in our influent. After several years we could detect no increase of copper loading to the POTW. There were no instances of interference or pass-through during the annual report year.

#9 ACTIONS TO REDUCE SIGNIFICANT VIOLATIONS

Overall industrial compliance with program requirements continues to be good, with no industries found to be in SNC. Compliance has been accomplished, in part, by continuing to meet with industrial user representatives and explaining their responsibilities in the program to eliminate confusion, i.e. monitoring and reporting requirements. The City is committed to minimizing industrial user violations and incidents of SNC by our permitted industrial users.

#10 LOCAL LIMITS

Local Limit calculations with lab analysis data was submitted to Mr. John G. Stoecker, Municipal Evaluation Section, USEPA Region I, on July 31, 1992. This was in accordance with the EPA Compliance Order dated August 22, 1991 (Docket No. 91-26). The Order was closed out on October 20, 1993. The revised Ordinance and Local Limits went into effect in November 1993. The last local limit reassessment was performed and submitted to Region I on September 19, 2014. Attached

ATTACHMENT A PRETREATMENT ANNUAL REPORT SUMMARY

EPA Region 1 Annual Pretreatment Report Summary Sheet February 2022

POTW Name:	Leominster WPCF	
NPDES Permit	MA0100617	
	ort Period Start Date:	1/1/2021
Pretreatment Rep	ort Period End Date:	12/31/2021
_	ndustrial Users (SIUs): at Control Mechanisms:	3 0
# of SIUs not Ins	pected:	0
# of SIUs not Sa	mpled:	0
# of SIUs in Sign with Pretreatmen	iificant Noncompliance (t Standards:	SNC) 0
# of SIUs in SNC Requirements:	C with Reporting	0
# of SIUs in SNC Compliance Sche	C with Pretreatment edule:	0
# of SIUs in SNC	Published in Newspape	r: 0
# of SIUs with C	ompliance Schedules:	0
# of Violation No	otices Issued to SIUs:	1
# of Administrati	ve Orders Issued to SIU	s: 0
# of Civil Suits F	iled Against SIUs:	0
# of Criminal Su	its Filed Against SIUs:	0
# of Categorical	Industrial Users (CIUs):	0
# of CIUs in SNO	C:	0
<u>Penalties</u> Total Dollar Ame	ount of Penalties Collect	ed \$ 0
# of IUs from wh	nich Penalties have been	0

Local Limits Date of Most Recent Technical Evaluation of Local Limits:	September 2014	
Date of Most Recent Adoption of Technically Based Local Limits:	November 1993	
Pollutant	Limit (mg/l)	MAHL (lb/day)

Attached is the most recent local limits assessment conducted in 2014.

Attachment E

ATTACHMENT B

LEOMINSTER INFLUENT AND EFFLUENT SAMPLING RESULTS

6/1/21 and 6/2/21

SAMPLE # 8153B, 8153C, 8154B and 8154C



June 11, 2021

Robert Chalifoux Veolia Water - Leominster 436 Mechanic Street Leominster, MA 01453

Project Location: Leominster, MA

Client Job Number: Project Number: 11764

Laboratory Work Order Number: 21F0147

Enclosed are results of analyses for samples received by the laboratory on June 3, 2021. If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Kaitlyn A. Feliciano Project Manager

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Veolia Water - Leominster 436 Mechanic Street Leominster, MA 01453 ATTN: Robert Chalifoux

REPORT DATE: 6/11/2021

PURCHASE ORDER NUMBER:

PROJECT NUMBER:

11764

ANALYTICAL SUMMARY

WORK ORDER NUMBER:

21F0147

The results of analyses performed on the following samples submitted to CON-TEST, a Pace Analytical Laboratory, are found in this report.

PROJECT LOCATION:

Leominster, MA

FIELD SAMPLE#	LAB ID:	MATRIX	SAMPLE DESCRIPTION	TEST	SUB LAB
8149 Inf	21F0147-01	Waste Water		SM19-22 4500 N	H3 C
8150 Eff	21F0147-02	Waste Water		SM19-22 4500 N	H3 C
8151 Inf	21F0147-03	Waste Water		SM 21-22 4500 P	E
8152 Eff	21F0147-04	Waste Water		SM 21-22 4500 F	'E
8153 A Inf	21F0147-05	Waste Water		SM19-22 4500 N	H3 C
8153 B Inf	21F0147-06	Waste Water		EPA 200.7	
				EPA 245.1	
8153 C Inf	21F0147-07	Waste Water		SM21-22 4500 C	NE
8154 A Eff	21F0147-08	Waste Water		SM19-22 4500 N	IH3 C
8154 B Eff	21F0147-09	Waste Water		EPA 200.7	
				EPA 245.1	
8154 C Eff	21F0147-10	Waste Water		SM21-22 4500 C	n e
A NoTown Lagoon	21F0147-11	Waste Water		EPA 200.7	
C NoTown Upstream from Lagoon	21F0147-12	Waste Water		EPA 200.7	
8155 Inf	21F0147-13	Waste Water		SM 21-22 4500 I	PE
8156 Eff	21F0147-14	Waste Water		SM 21-22 4500 I	PE



CASE NARRATIVE SUMMARY

All reported results are within defined laboratory quality control objectives unless listed below or otherwise qualified in this report.

SM21-22 4500 CN E

Qualifications:

R-06

Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.

Analyte & Samples(s) Qualified:

Cyanide B283446-MSD1

The results of analyses reported only relate to samples submitted to Con-Test, a Pace Analytical Laboratory, for testing.

I certify that the analyses listed above, unless specifically listed as subcontracted, if any, were performed under my direction according to the approved methodologies listed in this document, and that based upon my inquiry of those individuals immediately responsible for obtaining the information, the material contained in this report is, to the best of my knowledge and belief, accurate and complete.

Lisa A. Worthington Technical Representative

Jua Watthensten



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8149 Inf Sample ID: 21F0147-01

Sample Matrix: Waste Water

Start Date/Time: 5/30/2021 11:49:00AM Stop Date/Time: 5/31/2021 11:29:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N	11	0.30	mg/L	1		SM19-22 4500 NH3 C	6/4/21	6/5/21 9:00	AYK



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8150 Eff Sample ID: 21F0147-02

Sample Matrix: Waste Water

Start Date/Time: 5/30/2021 2:10:00PM Stop Date/Time: 5/31/2021 1:35:00PM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Ammonia as N	ND	0.30	mg/L	l		SM19-22 4500 NH3 C	6/4/21	6/5/21 9:00	AYK



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8151 Inf Sample ID: 21F0147-03

Samole Matrix: Waste Water

Start Date/Time: 5/31/2021 1:29:00PM Stop Date/Fime: 6/1/2021 8:34:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Phosphorus, Total	1.4	0.50	mg/L	10		SM 21-22 4500 P E	6/8/21	6/9/21 11:50	EC



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8152 Eff Sample ID: 21F0147-04

Sample Matrix: Waste Water

Start Date/Time: 5/31/2021 1:35:00PM

Stop Date/Time: 6/1/2021 8:40:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Phosphorus, Total	ND	0.050	mg/L	ı		SM 21-22 4500 PE	6/8/21	6/9/21 11:50	EC



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8153 A Inf Sample ID: 21F0147-05

Sample Matrix: Waste Water

Start Date/Time: 6/1/2021 8:34:00AM Stop Date/Time: 6/2/2021 8:29:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Quai	Method	Prepared	Analyzed	Analyst
Ammonia as N	12	0.30	mg/L	ı		SM19-22 4500 NH3 C	6/4/21	6/5/21 9:00	AYK



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8153 B Inf Sample ID: 21F0147-06

Sample Matrix: Waste Water

Start Date/Time: 6/1/2021 8:34:00AM Stop Date/Time: 6/2/2021 8:29:00AM

Metals Analyses (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Arsenic		ND	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Cadmium		ND	0.0040	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Chromium		ND	0.010	mg/L	ı		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Copper		0.042	0.010	mg/L	ı		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Lead		0.027	0.010	mg/L	I		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Mercury		ND	01000.0	mg/L	1		EPA 245.1	6/7/21	6/7/21 14:50	CJV
Nickel		ND	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Silver		ND	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:34	AJL
Zine		0.070	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:34	AJL



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8153 C Inf Sample ID: 21F0147-07

Sample Matrix: Waste Water

Start Date/Time: 6/1/2021 8:34:00AM

Stop Date/Time: 6/2/2021 8:29:00AM

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Cyanide		ND	0.010	mg/L	1		SM21-22 4500 CN E	6/7/21	6/8/21 9:16	YR



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8154 A Eff Sample ID: 21F0147-08

Sample Matrix: Waste Water

Start Date/Time: 6/1/2021 8:40:00AM Stop Date/Time: 6/2/2021 9:43:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Animonia as N	ND	0.30	mg/L	ı		SM19-22 4500 NH3 C	6/4/21	6/5/21 9:00	AYK



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8154 B Eff Sample ID: 21F0147-09

Sample Matrix: Waste Water

Start Date/Time: 6/1/2021 8:40:00AM Stop Date/Time: 6/2/2021 9:43:00AM

Metals Analyses (Total)

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Arsenic		ND	0.010	mg/L	i		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Cadmium		ND	0.0040	mg/L	ŧ		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Chromium		ND	0.010	mg/L	t		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Copper		ND	0.010	mg/L	l		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Lead		ND	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Mercury		ND	0.00010	mg/L	1		EPA 245.1	6/7/21	6/7/21 14:52	CJV
Nickel		ND	0.010	mg/L	1		EPA 200.7	6/4/21	6/7/21 19:41	AJL
Silver		ND	0.010	mg/L	1	•	EPA 200.7	6/4/21	6/7/21 19:41	AJL
Zinc		ND	0.010	mg/L	1		EPA 200,7	6/4/21	6/7/21 19:41	AJL



Date Received: 6/3/2021 Field Sample #: 8154 C Eff Sample ID: 21F0147-10

Sample Matrix: Waste Water

Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Start Date/Time: 6/1/2021 8:40:00AM Stop Date/Time: 6/2/2021 9:43:00AM

								Date	Date/Time	
	Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Cyanide		ND	0.010	mg/L	ī		SM21-22 4500 CN E	6/7/21	6/8/21 9:16	YR



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021

Field Sample #: A NoTown Lagoon

Sampled: 6/2/2021 12:30

Sample ID: 21F0147-11
Samole Matrix: Waste Water

Metals Analyses (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Quai	Method	Prepared	Analyzed	Analyst
Aluminum	0.16	0.050	mg/L	1		EPA 200.7	6/4/21	6/8/21 13:21	AJL



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021

Field Sample #: C NoTown Upstream from Lagoon

Sampled: 6/2/2021 12:30

Sample ID: 21F0147-12
Sample Matrix: Waste Water

Metals Analyses (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Aluminum	0.13	0.050	mg/L	ı		EPA 200.7	6/4/2 i	6/8/21 13:26	AJL



Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Date Received: 6/3/2021 Field Sample #: 8155 Inf Sample ID: 21F0147-13

Samole Matrix: Waste Water

Start Date/Time: 6/2/2021 8:40:00AM Stop Date/Time: 6/3/2021 8:26:00AM

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Fløg/Qual	Method	Prepared	Analyzed	Analyst
Phosphorus, Total	2.2	0.50	mg/L	10		SM 21-22 4500 P E	6/8/21	6/9/21 11:50	EC



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Date Received: 6/3/2021

Project Location: Leominster, MA

Sample Description:

Work Order: 21F0147

Field Sample #: 8156 Eff Sample ID: 21F0147-14

Sample Matrix: Waste Water

Start Date/Time: 6/2/2021 9:43:00AM Stop Date/Time: 6/3/2021 8:33:00AM

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total)

							Date	Date/Time	
Analyte	Results	RL	Units	Dilution	Flag/Qual	Method	Prepared	Analyzed	Analyst
Phosphorus, Total	ND	0.050	ing/L	1		SM 21-22 4500 P E	6/8/21	6/9/21 11:50	EC



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332

Sample Extraction Data

Prep Method: EPA 200.7 Analytical Method: EPA 200.7

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
21F0147-06 [8153 B Inf]	B283326	50.0	50.0	06/04/21	
21F0147-09 [8154 B Eff]	B283326	50.0	50.0	06/04/21	
21F0147-11 [A NoTown Lagoon]	B283326	50.0	50.0	06/04/21	
21F0147-12 [C NoTown Upstream from Lagoon]	B283326	50.0	50,0	06/04/21	

Prep Method: EPA 245.1 Analytical Method: EPA 245.1

Lab Number (Field ID)	Batch	Initial (mL)	Final (mL)	Date
21F0147-06 [8153 B Inf]	B283463	6.00	6.00	06/07/21
21F0147-09 [8154 B Eff]	B283463	6,00	6.00	06/07/21

SM 21-22 4500 PE

Lab Number [Field ID]	Batch	Initial [mL]	Final [mL]	Date	
21F0147-03 [8151 int]	B283518	50.0	50.0	06/08/21	
21F0147-04 [8152 Eff]	B283518	50.0	50.0	06/08/21	
21F0147-13 [8155 Inf]	B283518	50.0	50.0	06/08/21	
21F0147-14 [8156 Eff]	B283518	50.0	50.0	06/08/21	

SM19-22 4500 NH3 C

Lab Number (Field ID)	Batch	Initial [mL]	Final [mL]	Date	
21F0147-01 [8149 Inf]	B283388	100	100	06/04/21	
21F0147-02 [8150 Eff]	B283388	100	100	06/04/21	
21F0147-05 [8153 A Inf]	B283388	100	001	06/04/21	
21F0147-08 [8154 A Eff]	B283388	100	100	06/04/21	

SM21-22 4500 CN E

Lab Number [Field ID]	Batch	Initial (mL)	Final [mL]	Date	
21F0147-07 [8153 C Inf]	B283446	50.0	50.0	06/07/21	
21F0147-10 [8154 C Eff]	B283446	50.0	50.0	06/07/21	



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332 QUALITY CONTROL

Metals Analyses (Total) - Quality Control

	_	Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B283326 - EPA 200.7										
Blank (B283326-BLK1)				Prepared; 06	/04/21 Analy	/zed: 06/07/2	21			
Aluminum	ND	0.050	mg/L							· · · · · · · · · · · · · · · · · · ·
Arsenic	ND	0.010	mg/L							
Cadmium	ND	0.0040	mg/L							
Chromium	ND	0.010	mg/L							
Copper	ND	010.0	mg/L							
ead	ND	0.010	mg/L							
vickel	ND	0.010	mg/L							
Silver	ND	0.010	mg/L							
linc	ND	0.010	mg/L							
CS (B283326-BS1)				Prepared: 06	/04/21 Analy	zed: 06/07/2	21			
Muminum	0.492	0.050	mg/L	0.500		98.4	85-115			
Arsenic	0.475	0.010	mg/L	0.500		95.0	85-115			
Cadmium	0.479	0.0040	mg/L	0.500		95.9	85-115			
Chromium	0.489	0.010	mg/L	0.500		97.8	85-115			
Copper	0.986	0.010	mg/L	1.00		98.6	85-115			
ead	0.503	0.010	mg/L	0.500		101	85-115			
lickel	0.500	0.010	mg/L	0.500		100	85-115			
filver	0,526	0.010	mg/L	0.500		105	85-115			
line	0.970	010.0	mg/L	1.00		97.0	85-115			
.CS Dup (B283326-BSD1)				Prepared: 06	/04/21 Analy	zed: 06/07/2	!1			
Muminum	0.499	0.050	mg/L	0.500	,	99.7	85-115	1.30	20	
Arsenic	0.478	0.010	mg/L	0.500		95.5	85-115	0.528	20	
Cadmium	0.482	0.0040	mg/L	0.500		96.4	85-115	0.605	20	
Chromium	0.491	0.010	mg/L	0.500		98.2	85-115	0.347	20	
Copper	0.992	0.010	mg/L	1.00		99.2	85-115	0.608	20	
Lead	0.501	0.010	mg/L	0.500		100	85-115	0.412	20	
Vickel	0.502	0.010	mg/L	0,500		100	85-115	0.375	20	
Gilver	0.513	0.010	mg/L	0.500		103	85-115	2.45	20	
Zine	0.973	0.010	mg/L	1.00		97.3	85-115	0.294	20	
Batch B283463 - EPA 245.1										
Blank (B283463-BLK1)		.,	***************************************	Prepared & A	\nafyzed: 06/	07/21		William		
Mercury	ND	0.00010	mg/L		,					
LCS (B283463-BS1)				Prepared & A	Analyzed: 06/	07/21				
Mercury	0.00385	0.00010	mg/L	0.00400	,	96.2	85-115		***************************************	
LCS Dup (B283463-BSD1)				Prepared & A	\nalyzed: 06/	07/21				
Mercury		01000.0	mg/L				· · · · · · · · · · · · · · · · · · ·			



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332 QUALITY CONTROL

Conventional Chemistry Parameters by EPA/APHA/SW-846 Methods (Total) - Quality Control

		Reporting		Spike	Source		%REC		RPD	
Analyte	Result	Limit	Units	Level	Result	%REC	Limits	RPD	Limit	Notes
Batch B283388 - SM19-22 4500 NH3 C	***************************************									
Blank (B283388-BLK1)				Prepared: 06	5/04/21 Analy	/zed: 06/05/	21			
Ammonia as N	ND	0.30	mg/L			10.00	-10-00-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-			
LCS (B283388-BS1)				Prepared: 06	6/04/21 Analy	zed: 06/05/	21			
Ammonia as N	5.0	0.30	mg/L	5.00		101	86.2-110			
LCS Dup (B283388-BSD1)				Prepared: 00	04/21 Analy	zed: 06/05/	21			
Ammonia as N	5.0	0.30	mg/L	5.00		101	86.2-110	0.00	10	
Batch B283446 - SM21-22 4500 CN E										
Blank (B283446-BLK1)				Prepared: 06	/07/21 Analy	/zed: 06/08/	21			
Cyanide	ND	0.010	mg/L			•				
LCS (B283446-BS1)				Prepared; 06	/07/21 Analy	/zcd: 06/08/	21			
Cyanide	0,56	0.020	mg/L	0.644		87.7	77.6-115			
LCS Dup (B283446-BSD1)				Prepared: 06	/07/21 Analy	/zed: 06/08/	21			
Cyanide	0.58	0.020	mg/L	0.644		89.8	77.6-115	2.39	8,69	
Matrix Spike (B283446-MSI)	Sour	ce: 21F0147-	10	Prepared: 06	/07/21 Analy	zed: 06/08/	21			
Cyanide	0.33	0.010	mg/L	0.334	ND	97.4	58.3-128			
Matrix Spike Dup (B283446-MSD1)	Sour	ce: 21F0147-	10	Prepared: 06	/07/21 Analy	zed: 06/08/	21			
Cyanide	0.29	0.010	mg/L	0.334	ND	85.4	58.3-128	13.2	* 8.87	R-06
Reference (B283446-SRM1)				Prepared: 06	/07/21 Analy	zed: 06/08/	21			
Cyanide	0.368	0.010	mg/L	0.322		114	0-200			
Batch B283518 - SM 21-22 4500 P E									•	
Blank (B283518-BLK1)				Prepared: 06	/08/21 Analy	zed: 06/09/	21			
Phosphorus, Total	ND	0.050	mg/L		***					
LCS (B283518-BS1)				Prepared: 06	/08/21 Analy	zed: 06/09/	21			
Phosphorus, Total	0.17	0.050	mg/L	0.167		104	76.5-122			
LCS Dup (B283518-BSD1)				Prepared: 06	/08/21 Analy	zed: 06/09/	21			
Phosphorus, Total	0.17	0.050	mg/L	0.167		103	76.5-122	1.10	12.6	



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332 FLAG/QUALIFIER SUMMARY

*	QC result is outside of established limits.
†	Wide recovery limits established for difficult compound.
‡	Wide RPD limits established for difficult compound.
#	Data exceeded client recommended or regulatory level
ND	Not Detected
RL	Reporting Limit is at the level of quantitation (LOQ)
DL	Detection Limit is the lower limit of detection determined by the MDL study
MCL	Maximum Contaminant Level
	Percent recoveries and relative percent differences (RPDs) are determined by the software using values in the calculation which have not been rounded.
	No results have been blank subtracted unless specified in the case narrative section.
R-06	Matrix spike duplicate RPD is outside of control limits. Reduced precision is anticipated for reported result for this compound in this sample.



39 Spruce Street * East Longmeadow, MA 01028 * FAX 413/525-6405 * TEL. 413/525-2332 CERTIFICATIONS

Certified Analyses included in this Report

Certifications Analyte EPA 200.7 in Water CT,NY,MA,NH,RI,NC,ME,VA Aluminum CT,MA,NH,NY,RI,NC,ME,VA Arsenic CT,MA,NH,NY,RI,NC,ME,VA Cadmium CT,MA,NH,NY,RI,NC,ME,VA Chromium CT,MA,NH,NY,RI,NC,ME,VA Copper CT,MA,NH,NY,RI,NC,ME,VA Lead Nickel CT,MA,NH,NY,RI,NC,ME,VA Silver CT,MA,NH,NY,RI,NC,ME,VA Zinc CT,MA,NH,NY,RI,NC,ME,VA EPA 245.1 in Water CT,MA,NH,RI,NY,NC,ME,VA Mercury SM 21-22 4500 P E in Water CT,MA,NH,NY,RI,NC,ME,VA Phosphorus, Total SM19-22 4500 NH3 C in Water NY,MA,CT,RI,VA,NC,ME Ammonia as N

SM21-22 4500 CN E in Water

Cyanide

CT,MA,NH,NY,RI,NC,ME,VA

Con-Test, a Pace Environmental Laboratory, operates under the following certifications and accreditations:

Code	Description	Number	Expires
AIHA	AIHA-LAP, LLC - ISO17025:2017	100033	03/1/2022
MA	Massachusetts DEP	M-MA100	06/30/2022
CT	Connecticut Department of Publile Health	PH-0165	12/31/2022
NY	New York State Department of Health	10899 NELAP	04/1/2022
NH-S	New Hampshire Environmental Lab	2516 NELAP	02/5/2022
RI	Rhode Island Department of Health	LAO00112	12/30/2021
NC	North Carolina Div. of Water Quality	652	12/31/2021
NJ	New Jersey DEP	MA007 NELAP	06/30/2021
FL	Florida Department of Health	E871027 NELAP	06/30/2021
VT	Vermont Department of Health Lead Laboratory	LL720741	07/30/2022
ME	State of Maine	MA00100	06/9/2023
VA	Commonwealth of Virginia	460217	12/14/2021
NH-P	New Hampshire Environmental Lab	2557 NELAP	09/6/2021
VT-DW	Vermont Department of Health Drinking Water	VT-255716	06/12/2021
NC-DW	North Carolina Department of Health	25703	07/31/2021
PA	Commonwealth of Pennsylvania DEP	68-05812	06/30/2022
MI	Dept. of Env, Great Lakes, and Energy	9100	09/6/2021

210121

Doc # 381 Rev 2_06262019

39 Spruce Street

CHAIR OF CUSTODY RECORD

Phone: 413-525-2332

http://www.contestlabs.com

Glassware in freezer? Y / N *Contest is not responsible for missing samples from prepacked Prepackaged Cooler? Y/N analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Test values your partnership on each project and will try to assist with missing information, but will not be Chain of Custody is a legal document that must be complete and accurate and is used to determine what Glassware in the fridge? Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The 2 Preservation Code: Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water Total Number Of: Preservation Codes: (= Sodium Hydroxide S = Sulfuric Acid B = Sodium Bisulfate S = Soil SL = Sludge SOL = Sotid O = Other (please define) Non Soxhlet O = Other (please PCB ONLY å Ø z CDOGETS BACTERIA Soxhlet N = Nitric Acid M = Methanol GLASS ENCORE PLASTIC VIALS - Sodium Thiosutfate A = Air F # # define) possible sample concentration within the Conc NEI J.C. And All HAT U.P., SING Aumedified H - High; M - Medium; L - Low; C - Clean; U -Please use the following codes to indicate Chromatogram Code column above: ANALYSIS REOUESTED held accountable. Unknown Other X $\overline{>}$ SNOGOS AA MCF Required ALP the Uncerns Form Negatived CE PACE SECURIOR WRIA The State Sire Sequenced of of wantiffications from payon East Longmeadow, MA 01028 COMP/GRAB Watty Conclode VIALS GLASS PLASTIC BACTERIA BUCORE IDDE EXCEL Field Filtered Field Filtered Lab to Filter Lab to Filter School MWRA MBTA DOD \Box 0 0 0 0 쯦 Municipality <u>3</u> Brownfield **Due Date:** 10-0ay W. 361. 4 3-Day 21 J CLP Like Data Pkg Required: S. Water from PFAS 10-Day (std) Ending Date/Time 443 थुन्तुर Government Email To: Fax To #: Format: Federal City Other: နို 1-Day Day Client Comments: Project Entity Beginning Date/Time 19 16-3 9146-2 Dyte fime: 43/21 0940 63/71 154 0340 Email: info@contestiabs.com 54 Lange 34 Client Sample ID / Description 17/100 ALLO Fax: 413-525-6405 Sate/Time: Date/Time: Date/Time: Date/Time: 2000000 Project Manager: KOPEH (MALLEDY L'OMD SELL Invoice Recipient: AM TOUCO H KULDE でたぶ 4154 P 3 Con-Test Quote Name/Number: 4 (CON-test etinquished by: (signature) telinquished by: (signature) Sampled By: Ain andle it Received by: (signature) Work Order# ... Received by: (signature) Con-Test Project Location: Project Number: ved by: (sign Address: 17.7. Lab Comments:

21FO147

Doc # 381 Rev 2_06262019

39 Sprikce Street East Longmeadow, MA 01028

CHAIN OF CUSTODY RECORD

Phone: 413-525-2332

*Contest is not responsible for missing samples from prepacked Prepackaged Cooler? Y/N Fest values your partnership on each project and will try to assist with missing information, but will not be Glassware in freezer? Y / N Disclaimer: Con-Test Labs is not responsible for any omitted information on the Chain of Custody. The Chain of Custody is a legal document that must be complete and accurate and is used to determine what analyses the laboratory will perform. Any missing information is not the laboratory's responsibility. Con-Glassware in the fridge? S = Sulfuric Acid B = Sodium Bisulfate X = Sodium Hydroxide Total Number Of: Preservation Codes: | = !ced ¹ Matrix Codes: GW = Ground Water WW = Waste Water DW = Drinking Water SL = Sludge SOL = Solid O = Other (please define) 0 = Other (please Non Soxhlet Z/X coolers Soxhlet M = Methanol N = Nitric Acid PCB ONL) BACTERIA PLASTIC_ GLASS ENCORE VIALS Thiosulfate T = Sodium S = 50if A = Air H H define) possible sample concentration within the Conc Code column above: H - High; M - Medium; L - Low; C - Clean; U -Please use the following codes to indicate NELAC and Alfa-pap, LLC secretified Chromatogram held accountable. ANALYSIS REQUESTED Other का जाती के कि कि कि SALP LEISTREAMEN FORM REQUIRED MA MCP Required CT RCP Required nd state DW Registral ENCORE Marrix Conc. Code VIALS GLASS PLASTIC BACTERIA EXC Field Filtered Field Filtered Lab to Filter Lab to Filter School MBTA 0 0 0 0 ğ Municipality Brownfield Due Date: 3 # CHAVE 10-Day 3-Day 4-Day COMP/CRAB CLP Like Data Pkg Required: Z PFAS 10-Day (std) Ending Date/Time Government Email To: Fax To #: Federal Format: Other: 7-0ay 1-Day 2-Day Client Comments: Ġ Project Entity Date/Time March Control Time: 0940 Email: Info@contestlabs.com 13.16· Client Sample ID / Description St. 1.20,00,0 54 Fax: 413-525-6405 Project Manager: " Williauf + Chall fills late/Time: Date/Time: Date/Time: Date/Time: i form h str POULORS JANN WSALL 81512 Con-Test Quote Name/Number: CON-KSK Invoice Recipient: Aug Relinquished by: (signature) Project Number: //7/6 5 Relinguished by: (signature) elinquished by: (signature Received by: (signature) Received by: (signature) Sampled By: Kin Work Order# Project Location: red by: (sig ab Comments: *ddress: ソシ Phone: 97

I Have Not Confirmed Sample Container Numbers With Lab Staff Before Relinquishing Over Samples



Doc# 277 Rev 5 2017

Login Sample Receipt Checklist - (Rejection Criteria Listing - Using Acceptance Policy) Any False Statement will be brought to the attention of the Client - State True or False Client Date Received By How were the samples In Cooler No Cooler On Ice No ice received? Direct from Sampling Ambient Melted Ice By Gun# Actual Temp - ろん Were samples within By Blank # Temperature? 2-6°C Actual Temp -Was Custody Seal Intact? Were Samples Tampered with? Was COC Relinquished? Does Chain Agree With Samples? Are there broken/leaking/loose caps on any samples? Is COC in ink/ Legible? Were samples received within holding time? Did COC include all Client Analysis Sampler Name pertinent Information? Project ID's Collection Dates/Times Are Sample labels filled out and legible? Are there Lab to Filters? Who was notified? Are there Rushes? Who was notified? Are there Short Holds? Who was notified? Is there enough Volume? is there Headspace where applicable? MS/MSD? Proper Media/Containers Used? Is splitting samples required? Were trip blanks received? On COC? Do all samples have the proper pH? Acid Base Vials 4 Containers Unp-1 Liter Amb. 1 Liter Plastic 16 oz Amb. HCL-500 mL Amb. 500 mL Plastic 8oz Amb/Clear Meon-250 mL Amb. 250 mL Plastic 4oz Amb/Clear Bisulfate-Flashpoint Col./Bacteria 2oz Amb/Clear DI-Other Glass Other Plastic Encore Thiosulfate-SOC Kit Plastic Bag Frozen: Sulfuric-Perchlorate Ziplock Unused Media

Wills	Containers #			#
Unp- HCL-	1 Liter Amb.	1 Liter Plastic	16 oz Amb.	
HCL-	500 mL Amb.	500 mL Plastic	8oz Amb/Clear	· · · · · · · · · · · · · · · · · · ·
Meoh-	250 mL Amb.	250 mL Plastic	4oz Amb/Clear	
Bisulfate-	Col./Bacteria	Flashpoint	2oz Amb/Clear	
DI-	Other Plastic	Other Glass	Encore	
Thiosulfate-	SOC Kit	Plastic Bag	Frozen:	
Sulfuric-	Perchlorate	Ziplock		
Comments:				

ATTACHMENT C LABORATORY REPORTS FOR LEOMINSTER POTW SLUDGE KEPT ON FILE AT THE LEOMINSTER WWTP

ATTACHMENT D ACUTE & CHRONIC TOXICITY SUMMARY SHEETS DMR'S



March 25, 2021

U.S. Environmental Protection Agency (OES4-SMR) Water Technical Unit 5 Post Office Square – Suite 100 Boston, NA 02109-3912

To Whom It May Concern:

Attached are the Quarterly Acute and Chronic Toxicity Testing Reports for the City of Leominster Wastewater Treatment Facility, as required by the City's NPDES Permit #MA0100617.

If you should have any questions or require further information, please feel free to call.

Sincerely,

<u>Veol</u>ia Water North America

Robert Chalifoux Project Manager

enc.

cc: MADEP - Division of Watershed Management

MADEP - Bureau of Resource Protection

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

DERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

LEOMINSTER W W T P NAME:

ADDRESS: 436 MECHANIC ST LEOMINSTER, MA 01453

FACILITY: LEOMINSTER WWTP LOCATION: 436 MECHANIC ST

LEOMINSTER, MA 01453

DISCHARGE NUMBER 1606 MM/DD/YYYY 03/31/2045 001-B MONITORING PERIOD 202 PERMIT NUMBER MM/DD/YYYY 03/01/2015 MA0100617

01453 EFFLUENT TOXICITY DATA DMR Mailing ZIP CODE: (SUBR C) MAJOR

OMB No. 2040-0004

to the second second

External Outfall

No Discharge ∏

CECIMINALER, M. P. C.	100			F DY		Š				
ATTN: ROBERT CHALIFOUX, PLAN1 MGK	LAN1 MGK					CHALLY OR CONCENTRATION	SENTRATION	NO.	<u> </u>	Ś
		QUANTIT	≻i	- 1	-	VALUE	VALUE	UNITS	EX OF ANALISIS	7 7 7
PARAMETER		VALUE	VALUE	SINO	VALUE ******	******	0	- C	710	200
Nitrogen, ammonia total [as N]	SAMPLE MEASUREMENT	*****	******				C.3.8)] [2]		
00610 1 0	PERMIT	***	*****	*****	*****	***	Req. Mon. DAILY MX	7/6	Qualicity	
Effluent Gross	SAMPLE	*****	*****	*****	*****	****	707	2	00/100	८७अन
Hardness, total las Cacco	MEASUREMENT			*****	******	***	Req. Mon.	₩ mg/L	Quarterly	COMP24
00900 1 0	PERMIT REQUIREMENT	****	*****		******	****	DAILY MX		7/0	1,00
Nickel, total recoverable	SAMPLE	****	*****	****			C00.0	2 (2)	- 1	COMP24
. 01074 1 0	PERMIT	*****	****	*****	*****	****	Req. Mon. DAILY MX	mg/L	Qualicity	
Effluent Gross	REQUIREMENT	*******	*****	*****	*****	*****	0.038	2	00/60	(८९५
Zinc, total recoverable	MEASUREMENT				*****	******	Reg. Mon.		Quarterly	COMP24
01094 1 0	PERMIT	***	****				DAILY MX		C	6
Effluent Gross Aluminum, total recoverable	SAMPLE	*****	****	*****	****		0.039	2)	COMP24
	PERMIT	*****	*****	*****	*****	****	Req. Mon. DAILY MX	mg/L	Qualies ly	
01104 1 0 Effluent Gross	REQUIREMENT		*****	******	*****	*****		101	01/0	7000
Cadmium, total recoverable	SAMPLE	E					ののひと	1		COMP24
01113 1 0	PERMIT	*****	*****	****	****		DAILY MX	j ,		\dashv
Effluent Gross Lead, total recoverable	SAMPLE	*****	****	*****	*****	*****	400003		05/00	2627
01114 1 0	PERMIT	***	*****	*****	****	*****	Req. Mon. DAILY MX	mg/L	Диапепу	
Effluent Gross	REQUIREMENT							-	TEI EPHONE	DATE
			1900 - 10 - 10 - 10 - 10 - 10 - 10 - 10	o description and alreaden of	direction of	/				

supervicion in accordance with a system decigned to assert this qualified personnel property whither a coveral and the control of the control

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND jan.31.

Page 11/21/2014

MM/DD/YYY 03/25/

478-537-574

FICER OR

MENATURE OF PRINCIPAL EXECUTIVE OF AUTHORIZED AGENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION-SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) NAME:

Effluent Gross

001-B

DMR Mailing ZIP CODE:

OMB No. 2040-0004 יייייושקלי ווווס ו

01453

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER (nelibert TYPED OR PRINTED

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

· DATE

TELEPHONE

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND Jan.31.

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)



New England Bioassay Inc.

Aquatic Toxicity Testing Services

77 Batson Drive Manchester, CT 06042 (860)-643-9560 www.nebio.com

CHRONIC AQUATIC TOXICITY TEST REPORT

Dormitee:	Leom	inster WWTP		N	PDES#_!	MA010	0617	
Danart submitted to:	to: Leominster WWTP NPDES # _1							
Leominster, MA 01453								
Sample ID: Effluent								
Test Month/Year: March 2021								
NEB Proj # 44644								
Test Type / Method: Ceriodaphnia dubia Modified Chronic Static-Renewal Freshwater								
Test Type / Method:	Ceriodaphnia du	ibia Modified	Chroni	ic Sta	tic-kene	Wal F	i esiiwatei	
	Test Method 10	02.0; EPA 821-	R-02-01	13				
Effluent Sample Dates:	#13/9-10/	21 #2	3/11-	12/21	#3 _	3/:	14-15/21	
Test Start Date: 3/10/21								
Results Summary								
Your results were as fol	lows:							
Passed all permit limits								
	·						ļ	
		Acute Test Res	ults					
Species	LC50	A-NOE		Pern	nit Limit	F	Pass / Fail	
Ceriodaphnia dubia	>100%	100%		≥	100%		Pass	
Сеповартта чавта		T	culte					
		hronic Test Re		25	Permit	Limit	Pass/Fail	
Species	C-NOEC	C-LOEC >100%		00%	≥ 43.		Pass	
Ceriodaphnia dubia	100%	>100%	1 /10	7070				
Data Qualifiers affecting this test:								
							,	
1								

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

This report shall not be reproduced, except in its entirety, without approval of NEB. NEB is the sole authority for authorizing edits or modifications to the data contained in this report. NEB holds no responsibility for results and/or data that are not consistent with the original. Please contact the Lab Director, Kimberly Wills, at 860-643-9560 or kimberly.wills@nebio.com if you have questions concerning these results.

Test Report Certification

	Leominster WWTP	Permit number:	MA0100617
Permittee name:	Effluent	Test Start Date:	3/10/21
Client sample ID:			
Whole	Iffluent Toxicity Test Repo	rt Certification (Permi	ttee)
I certify under penalty o supervision in accordant evaluate the information those persons directly re	f law that this document and all at note with a system designed to assusabmitted. Based on my inquiry of sponsible for gathering information, true, accurate, and complete. I amation, including the possibility of (Date)	tachments were prepared unite that qualified personnel parties the person or persons who is, the information submitted aware that there are signification and imprisonment for lathorized Signature	nder my direction or properly gather and manage the system, or d is, to the best of my ficant penalties for knowing violations.
		MA0100	617
1 750	uent Toxicity Test Report C	ertification (Bioassay	Laboratory)
Whole Effic	e results reported relate only to the	e samples submitted as rece	ived
I certify under penalty supervision in accord evaluate the information those persons directly	y of law that this document and all dance with a system designed to a submitted. Based on my inquiry responsible for gathering information, including the possibility	attachments were prepared ssure that qualified personne of the person or persons wh tion, the information submit	l under my direction or el properly gather and o manage the system, or ted is, to the best of my mificant penalties for
Executed on:	3/22/21 (Date)	Kimberli Kimberli Laboratory New England	Director

General Test Conditions

	Leominster WWTP	Permit number: _	MA0100617
Permittee name:	Effluent	Test Start Date:	3/10/21
Client sample ID:			
	Sample Collection In	nformation	
Effluent #1 Dates/Times: Effluent #2 Dates/Times: Effluent #3 Dates/Times: Were a minimum of three s Were samples used within * sample collection note:	3/11-12/21 @ 0844-0821 Re 3/14-15/21 @ 1404-0912 Re	ceiving Water #1 Date/Time: ceiving Water #2 Date/Time: ceiving Water #3 Date/Time: No	3/10/21 @ 0900 3/12/21 @ 0845 3/15/21 @ 0930 ote below)
	Test Condi	tions	
Control water: Receiving Effluent concentrations to Was effluent salinity adjust Dechlorination procedure Dechlorination was no	sted? No	sely upstream of or away from tr 5%, 50%, 100% Instant Ocean sea salts to G DPD Colorimetric Method	ppt
	Reference To	xicant Data	
	Ceriodaph Date: Toxicant: Dilution Water: Organism Source:	nia dubia 3/1/21 Sodium chloride NEB CTRMH NEB	
	Reproduction IC25: Results within range	1.02 g/L Yes 🗸 No 🗌	

Ceriodaphnia dubia Test Results

			MATTE.	De	ermit number:	MA0100617
Permittee name:		Leominster V	VVVIP	Test Dates:		3/16/21
Client sample ID:		Effluent		rest bates.	37.201	
		Test Ac	ceptability Cri	teria		
ab Diluent Surviva	al:	90 % Mean Lab	Diluent Reprodu	uction:	· · · · · · · · · · · · · · · · · · ·	ng per female
liver Control Survi	val:	100 % Mean Rive	er Control Repro	duction:		ng per female
hiosulfate Contro	l Survival:	N/A % Mean Thic	osulfate Control	Reproduction:		ng per female
resence of an ast	erisk (*) indi	cates EPA criteria was no	t met, see explai	nation in the "F	lesults Discussion"	section at the
ottom of the folk	owing page.			<u> </u>		
			Test Results	Dlk	Pass/Fail Status	
,			Permit Limit	Test Result	l Time I	
	Acute	48 hr LC50	≥ 100%	>100%	Pass	
	Data	48 hr NOEC		100%		
		TUa				
		Chronic LC50		>100%		
		Survival C-NOEC		100%		
		Survival C-LOEC		>100%		
	ļ	Reproduction C-NOEC		100%	42.4	
		Reproduction C-LOEC		>100%		1
	Chronic Data	Reproduction IC25		>100%		
	Data	Reproduction IC50		>100%	1 2 2 3 3 3 3 3 3	-
		Reportable C-NOEC	≥ 43.5%	100%	Pass	
		Reportable C-LOEC		>100%		_
		MATC		>100%		· -
		TUc				1
Presence of an ast bottom of the follo		ates qualified data, see expl			section at the	
			Test Variabilit		Low Within	n bounds High
Reproduction Pl	MSD:		wer EPA bounds:			., 200
		ounds. Test results are hig		may not be se	nsitive enough to	aeternine
the present	ce of toxicity	at the permit limit conce	ntration (PLC)			
☑ The PMSD f	falls within th	ne upper (47%) and lowe	r (13%) bounds.	Results are rep	ortable.	
		wer bound test variabilit				percent
difference	(RPD) betwee	en the control and each t	treatment was ca	alculated and o	ompared to the lo	wer bound.
☐ The RP conside	D values for a	all concentrations fall be ally insignificant.	low the lower bo	ound. Any differ	rences observed in	this test are
Some o		ntrations that were flagge nces observed in these co	ed as statistically oncentrations wi	significant hav Il not be consid	e RPD values that lered statistically s	fall below the lower ignificantly decrease
		ificant reductions were c	bserved in this t	est.		

Ceriodaphnia dubia Test Results

Permittee name:	Leominster WWTP	Pe	rmit number:	MA0100617
Client sample ID:	Effluent	Test Dates:	3/10/21	3/16/21
	Concentration - Respo	nse Evaluation		
Survival: #11 No co	ncentration-response curve: no mortalit	y observed at any co	ncentration.	
Danua diretioni #12 No ci	gnificant effects at any test concentratio	n with a relatively fla	t concentration-I	response curve.
Test conc	entrations performed both above and be	elow (but similarly to) the dilution cor	itrol.
The concentration - respo	onse relationship was reviewed and the f	ollowing determinati	on was made:	
Survival Reprodu	uction			
x X	Results are reliable and reporta	ble		
	Results are anomalous (see	explanation below)		
	Results are inconclusive - retest	(see explanation bel	low)	
	Results Discussion	(if applicable):		



July 7, 2021

MA Dept. Of Environmental Protection Bureau of Resource Protection Central Region Office Nashua Watershed Team 8 New Bond Street Worcester MA, 01606

To Whom It May Concern:

Attached are the Quarterly Acute and Chronic Toxicity Testing Reports for the City of Leominster Wastewater Treatment Facility, as required by the City's NPDES Permit #MA0100617.

If you should have any questions or require further information, please feel free to call.

Sincerely,

Veolia Water North America

Robert Chalifoux Plant Manager

enc.

cc: USEPA - Region I (OES4-DMR)

MADEP - Division of Watershed Management

EPA Form 3320-1 (Rev.01/06) Previous editions may be used.

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004

LEOMINSTER, MA 01453	FACILITY DEPONITOR AND STORY OF THE PROPERTY O	TARREST COMMINISTER WWW.T.P	ADDRESS: 436 MECHANIC 31	NAME: LEOMINSTER W W T P	PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)
06/01/2021	20/01/2016	WW/DD/YYYY	MONITO	PERMIT NUMBER	MA0100617
06/30/2021	-03/4/2015	MM/DD/YYY	MONITORING PERIOD	DISCHARGE NUMBER	001-B

MAJOR (SUBR C) DMR Mailing ZIP CODE: External Outfall EFFLUENT TOXICITY DATA No Discharge 01453

				1	•	y direction a	wore prepared under m)	and all attachments were prepared under my direction of			
DATE	TEI EPHONE	151								REQUIREMENT	Effluent Gross ·
			-	DAILY MX	•		***************************************	*****	*****	PERMIT	
COMP24	Quarterly		mg/L	Rea. Mon.	****	****				MEASUREMENT	Lead, total lecuverance
28	Š	C	<u>ځ</u> چ	2000	<u></u>	3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	*****	*****	*****	SAMPLE	Effluent Gross
	100		+	DAILY MX	*****				3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	PERMIT PERMIT	01113 1 0
CUMP 24	Quarterly		((g/L	Req. Mon.	*****	****	*****	****		MEAGOREMEN	1
	25.	Ć	<u>3</u>	100001	-		2	******	*****	SAMPLE	Cadmium, total recoverable
524	2/10	>	70		****	****				REQUIREMENT	01104 1 0
	Control of		mg/L	Req. Mon.	*****	*****	Hickory	*****	****	MRSSG	
COMP24	Ouarterly	1	3	0.00				***************************************	****	SAMPLE . MEASUREMENT	Aluminum, total recoverable
200	2010	>		Š	****	*****	*****			REQUIREMENT	01094 1 0
			1,6	DAILY MX	****	*****	****	*****	*****	PERMIT	
COMP24	Quarterly			0.000						MEASUREMENT	Zinc, total recoverable
U224	01/20	0	3	2000	*****	*****	*****	*****	****	ZECONTRE	Effluent Gross
			-	DAILY MX		,		*****	****	PERMIT	01074 1 0
COMP24	Quarterly		⊒(g/L	Req. Mon.	*****	****	*****			MEASUREMENT	Nichal, total cool and the
1	740	C	<u>₹</u>	POO.00			3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	****	****	SAMPLE	Nickel total recoverable
2002	20162)	=	57.17	*****	****				REQUIREMENT	00900 1 0
(Cananciny		_ mg/L	Red Mon	*****	*****	*****	***	****		
COMP24	_ _	C	3	74				3 2 2 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	****	SAMPLE	Hardness, total [as CaCO3]
5020	01/00)	*****	****	*****			REQUIREMENT	D0610 1 0
	<u> </u>		1,0/1	Req. Mon.	****	***	Heritain	東京 東京	*****	PERMIT	
COMP24		1	3	0.1					3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	SAMPLE	Nitrogen, ammonia total [as N]
3 2 2	01/6/	<u>></u>	- -	5	****	*****	*****	*****	1		TAKAMELEX
	-	\perp	CINIO	VALUE	VALUE	VALUE	UNITS	VALUE	VAI 11F		
TYPE	OF ANALYSIS	Z O		TY OR CONCENTRATION	QUALITY OR CON	Q	G	OLIANTITY OR LOADING	NALIO		ATIN: ROBERT CHARLEOUX, 1 0 11 11 11 11 11 11 11 11 11 11 11 11
SAMDI T	7011101									DI ANT MGR	

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here) TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, Jul. 31, oct 31, AND jan.31.

Hobart Chal, Confrogation

NAME/TITLE PRINCIPAL EXECUTIVE OFFICER | locally under penalty of law that this document and all attachments appendion in accordance with a system designed to accure that quare the formation cubmitted. Based on my inquiry of the person and the information cubmitted. Based on my inquiry of the person cubmit of the person cu

revaluate the information submitted. Based on my inquiry of the person of persons who maked the large statement of the person of the person who maked the person of these persons discally responsible for gathering the information, the information attended to the best of my knowledge and belief, thus, ascurate, and complete, I am aware that there are significant persons to the person of the persons of the pers

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

08C-523-216

NUMBER

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

Form Approved OMB No. 2040-0004

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)	NAME/TITLE PRINCIPAL EXECUTIVE OFFICER TYPED OR PRINTED		Effluent Gross	TBP3B 1 0 . PERMIT REQUIREMENT	Noel Statre 7Day Chronic Ceriodaphnia MEASUREMENT	S RI	LC50 Static 48Hr Acute Ceriodaphnia SAMPLE MEASUREMENT	01119 1 0 PERMIT REQUIREMENT	Copper, total recoverable MEASUREMENT	PARAMETER	ATTN: ROBERT CHALIFOUX, PLANT MGR		PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) NAME: LEOMINSTER V/V/T/P ADDRESS: 436 MECHANIC ST
ONS (Reference all attachm	Tracefully under penalty of law that this doe apports on the person of the penalty of the pena			T *******	ENT *******	IENT ******	ENT	ENT		QUANI			e/Location if Different)
ments here)	i cerdify under penalty of law that this document and all situatments were prepared under my direction of concerning penalty of law that my direction is accordance with a spacer of the concerning the concerning property galber of accordance in the concerning th	·.		****		**************************************		****	*****	QUANTITY OR LOADING VALUE . UNITS	00/01/2020	MM/DD/YYYY	MA0100617 PERMIT NUMBER
	reported undar my direction a reconcil property guitar of a reconcil property guitar of a recons who manage the factors who manage the factors who manage the factors are distributed to the second second second second sec			DAILY MN	<u> </u>	DAILY MN	<u> </u>			VALUE		TORING PER	DISCHA
	TURE OF PRINCIPAL EXE AUTHORIZED A				******	*******	****	***		CONCENT		MM/DD/YYYY	001-B RGE NUMBER
,	OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT				%	******* O/.	% nxxxxx	DAILY MX	0.0122 ml	VALUE UNITS		External Outfall External Outfall No	DMR Mailing ZIP CODE: MAJOR (SUBR C)
	AREA GODE NUMBER	TELEPHONE			~·	0/,	per Year	0/ /	O O V GO	ALYSIS	FREQUENCY	No Discharge	ZIP CODE: 01453.
	Z/C/C	DATE			· COMP2	200	COMP2	60	COMP2	TYPE	SAMPLE	eg.	.=

TEST IN MARCH, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND Jan.31.



New England Bioassay Inc.

Aquatic Toxicity Testing Services

77 Batson Drive Manchester, CT 06 (860)-643-9560 www.nebio.com

CHRONIC ADUATIC TOXICITY TEST REPORT

<u>.</u> 2	CHRONIC AQ						
	Leo	minster WWT)	N	PDES#_I	MA01(00617
Report submitted to:		Mechanic Stre	≘t				
Neport Submitted to		ninster, MA 01					
Sample ID:		Effluent					
Test Month/Year:		June 2021					
		44644					
_					5	- 1 5	
Test Type / Method:	Ceriodaphnia o Test Method 1	<i>dubia</i> Modifie L002.0; EPA 82	d Chron 1-R-02-0	iic Sta 113	tic-Kene	ewai F	resnwatei
Effluent Sample Dates:	#1 6/8-9)/21#2_	6/10-	-11/21	#3_	6/	13-14/21
Test Star	t Date:	6	/9/21		<u>,</u>		

	 -	Results Sum	nary				
Your results were as fo Passed all permit limits		Results Sum	nary				
	5	Acute Test R	esults				Description / Fail
Passed all permit limits Species	LC50	Acute Test R	esults DEC	<u> </u>	nit Limit	F	Pass / Fail
Passed all permit limits	5	Acute Test R	esults DEC	<u> </u>	nit Limit	F	Pass / Fail Pass
Passed all permit limits Species	LC50	Acute Test R	esults DEC 19%	<u> </u>		F	Pass
Passed all permit limits Species Ceriodaphnia dubia	LC50	Acute Test R A-N0	esults DEC 1% Results	<u> </u>			
Passed all permit limits Species Ceriodaphnia dubia Species	LC50 >100%	Acute Test R A-N(100 Chronic Test	esults DEC 19% Results	≥:	100%	Limit	Pass
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Passed all permit limits Species Ceriodaphnia dubia Species	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100%	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail
Species Ceriodaphnia dubia Species Ceriodaphnia dubia Ceriodaphnia dubia	LC50 >100% C-NOEC 100% ing this test:	Acute Test R A-N0 100 Chronic Test	esults DEC 19% Results	≥ :	100% Permit	Limit	Pass Pass/Fail

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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Test Report Certification

Permittee name:	Leominster WWTP	Permit number:	MA0100617
Client sample ID:	Effluent	Test Start Date:	6/9/21
·			
Whole	Effluent Toxicity Test R	leport Certification (Permi	ttee)
supervision in accord evaluate the information those persons directly in knowledge and helic	ance with a system designed to a submitted. Based on my inqu responsible for gathering infor ef. true, accurate, and complet	all attachments were prepared upon assure that qualified personnel pairy of the person or persons who mation, the information submitted as a ware that there are significated from the lity of fine and imprisonment for kere.	manage the system, or d is, to the best of my ficant penalties for
Evacuted on:	-7-21		
Executed on:	(Date)	Authorized Signature	
		RobertChalifoux	Project Manager
		Print or Type Name and Title	
		City of Leomi	noter MA
	•	Print or Type the Permittee's N	lame
		MA01006	517
		Print or Type the NPDES Perm	it Number
Whole Effl	uent Toxicity Test Repo	rt Certification (Bioassay L	aboratory)
Th	e results reported relate only	to the samples submitted as receiv	ved
supervision in accor evaluate the information those persons directly knowledge and be	dance with a system designed on submitted. Based on my inc y responsible for gathering info lief. true. accurate, and compl	nd all attachments were prepared to assure that qualified personne quiry of the person or persons who ormation, the information submittete. I am aware that there are signification of fine and imprisonment for	i properly gather and o manage the system, or ed is, to the best of my nificant penalties for
Executed on:	6/24/21 (Date)	Kimbonly Kimbonly Laboratory I	Director
		New England Bi	oassay Inc.

General Test Conditions

Permittee name:	Leominster WWTP	Permit number:	MA0100617
Client sample ID:	Effluent	Test Start Date:	6/9/21
	Sample Collectio	n Information	
Effluent #1 Dates/Times: Effluent #2 Dates/Times: Effluent #3 Dates/Times: Were a minimum of three s Were samples used within t * sample collection note:	6/8-9/21 @ 0929-0822 6/10-11/21 @ 0851-0849 6/13-14/21 @ 1331-0840 amples collected? Yes the first 36 hours of collection?	Receiving Water #1 Date/Time: Receiving Water #2 Date/Time: Receiving Water #3 Date/Time: No *(see note below) Yes No *(see note below)	6/9/21 @ 0855 6/11/21 @ 0835 6/14/21 @ 0855 ote below)
***************************************	Test Con	ditions	
Control water: Receiving Effluent concentrations tes Was effluent salinity adjust Dechlorination procedures Dechlorination was not a	tory synthetic soft water (hardness g water collected at a point immedited: 0%, 6.25%, 12.5%, 25%, 43 ed? No ✓ Yes ☐ wired: Chlorine is measured using 4500 Corequired	ately upstream of or away from the 3.5%, 50%, 100% th Instant Ocean sea salts to	ppt
	Reference To	oxicant Data	
1		hnia dubia	
	Date: Toxicant: Dilution Water: Organism Source: Reproduction IC25:	6/14/21 Sodium chloride NEB CTRMH NEB 1.17 g/L Yes No	

Ceriodaphnia dubia Test Results

		Ceriodapini				MA0100617
Permittee name:		Leominster V	VWTP		ermit number: _	- 6/15/21
Client sample ID:		Effluent		Test Dates:	6/9/21	- 0/13/21
		Test Ac	ceptability Cri	teria		
Lab Diluent Surviv	al:	100 % Mean Lab	Diluent Reprodu	action:		ng per female
River Control Surv		100 % Mean Rive	er Control Repro	duction:		ng per female
Ti :!f-t- Contro	al Curvival:	N/A % Mean Thic	osulfate Control	Reproduction:		ng per female
Presence of an ast	terisk (*) indi	cates EPA criteria was no	t met, see expla	nation in the "f	Results Discussion	' section at the
bottom of the foll	owing page.					
			Test Results			
			Permit Limit	Test Result	Pass/Fail Status	1
		48 hr LC50	≥ 100%	>100%	Pass	
	Acute Data	48 hr NOEC		100%		
	Data	TUa				1
		Chronic LC50		>100%		
		Survival C-NOEC		100%		1
		Survival C-LOEC		>100%		-
		Reproduction C-NOEC		100%		-
Chronic Data		Reproduction C-LOEC		>100%		
	Reproduction IC25		>100%			
		Reproduction IC50		>100%		
		Reportable C-NOEC	≥ 43.5%	100%	Pass	_
		Reportable C-LOEC		>100%		-
		MATC		>100%		
		TUc				
Presence of an as	iterisk (*) indici lowing page.	ates qualified data, see expl	anation in the "Re Test Variabilit		section at the	
					□ Low ☑ Withi	in bounds High
Reproduction P			wer EPA bounds			
		ounds. Test results are hig		I may not be se	ensitive enough to	determine
		at the permit limit conce				
☑ The PMSD	falls within th	ne upper (47%) and lowe	r (13%) bounds.	Results are rep	ortable.	
PMSD falls	below the lo	wer bound test variabilit	y criterion. The	test is very sen	sitive. The relative	percent
difference	(RPD) between	en the control and each t	reatment was c	alculated and c	compared to the lo	ower bound.
☐ The RF consid	PD values for lered statistic	all concentrations fall be ally insignificant.	low the lower bo	ound. Any diffe	rences observed i	n this test are
bound from t	d. Any differenthe the control.	ntrations that were flagge nces observed in these co	oncentrations w	II not be consid	ve RPD values that dered statistically s	fall below the lower significantly decreased
☐ No sta	atistically sign	ificant reductions were c	bserved in this	est.		

Ceriodaphnia dubia Test Results

Permittee name:	Leomins	ster WWTP		Permit number:	MA0100617
Client sample ID:	Effluent		Test Dates	6/9/21	- 6/15/21
	Concen	tration - Re	sponse Evaluation		
Survival: #11 N	o concentration-response c	urve: no mo	rtality observed at any o	concentration.	
Reproduction: #12 N Test o	o significant effects at any t concentrations performed b	test concent oth above a	ration with a relatively nd below (but similarly	flat concentration- to) the dilution cor	response curve. ntrol.
	esponse relationship was re	viewed and	the following determin	ation was made:	
Survival Rep	roduction	t-l-l d vov	ortoble		
<u> </u>	X Results are reli		(see explanation below	w)	
	Results are and				
	Results are inc	onclusive - r	etest (see explanation	ueiow <i>j</i>	
	Res	ults Discus	sion (if applicable):		



October 7, 2021

U.S. Environmental Protection Agency (OES4-SMR) Water Technical Unit 5 Post Office Square – Suite 100 Boston, NA 02109-3912

To Whom It May Concern:

Attached are the Quarterly Acute and Chronic Toxicity Testing Reports for the City of Leominster Wastewater Treatment Facility, as required by the City's NPDES Permit #MA0100617.

If you should have any questions or require further information, please feel free to call.

Sincerely,

Veolia Water North America

Robert Chalifoux Project Manager

enc.

cc: MADEP – Division of Watershed Management MADEP – Bureau of Resource Protection



New England Bioassay Inc.

Aquatic Toxicity Testing Services

77 Batson Drive Manchester, CT 06042 (860)-643-9560 www.nebio.com

CHRONIC AQUATIC TOXICITY TEST REPORT

Permitee:	Leom	inster WWTP		N	IPDES#_	MA01	00617_	
Report submitted to:	436 M	echanic Street	•					
	Leomin	ster, MA 0145	53					
Sample ID:	•	Effluent						
Test Month/Year:	Sept	ember 2021						
NEB Proj #		44644						
							-	
Test Type / Method:					itic-Ren	ewai t	-resnwater	
	Test Method 100)2.0; EPA 821-	·R-02-01	13				
Effluent Sample Dates:	#1 9/7-8/2	1 #2	9/9-1	.0/21	#3	9/	/12-13/21	
Zimacin Ballipia Ballia								
Test Start Date: 9/8/21								
	R	esults Summ	ary	***************************************				
Your results were as fo	llows:							
Passed all permit limits								
<u>'</u>								
	Δ	cute Test Res	ults					
Species	LC50	A-NOE		Perm	it Limit	ſ	Pass / Fail	
Ceriodaphnia dubia	>100%	100%			≥ 100% Pass			
сепоиирппи иили								
		ronic Test Re	1	Т			- /2 1	
Species	C-NOEC	C-LOEC	IC2		Permit		Pass/Fail	
Ceriodaphnia dubia	100%	>100%	>100	0%	≥ 43.	5%	Pass	
Data Qualifiers affectir	ng this test:							

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES)

DISCHARGE MONITORING REPORT (DMR)

OMB No. 2040-0004

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) LEOMINSTER W W T P NAME:

436 MECHANIC ST LEOMINSTER, MA 01453 ADDRESS:

LEOMINSTER W W T P

LOCATION: 436 MECHANIC ST LEOMINSTER, MA 01453 FACILITY:

02/20/2091 DISCHARGE NUMBER 99/34/2015 MM/DD/YYYY 001-B MONITORING PERIOD 00 101 (20g) PERMIT NUMBER MM/DD/YYYY 03/04/2015 MA0100617

01453 EFFLUENT TOXICITY DATA DMR Mailing ZIP CODE: (SUBR C) MAJOR

External Outfall

No Discharge

ENVIOLE STOCKTON TO THE PROPERTY OF THE PROPER	GUM TIVO))	さんとうべつ				0.1	EPEDITENCY	SAMPLE
ATTN: ROBER! CHALLFOON, FLANTINGS			SINICIA O L GO VENIE	ď	0	QUALITY OR CONCENTRATION	ENTRATION	XX		TYPE
		VALUE		UNITS	VALUE	VALUE	VALUE	SIND		1.00
PAKAMETEK	SAMPLE	*****	*****	*****	****	*****	٥٠١٥	MKO	0 de 0	T KONOO
מפון, מיוויספון, מיווי	MEASUREMENT	*****	*****	*****	*****	***	Reg. Mon. DAILY MX	mg/L	Опапену	
00610 1 0 Ffluent Gross	REQUIREMENT		*****	*****	*****	*****	7 20	() ()	000	1895 1895
Hardness, total [as CaCO3]	SAMPLE MEASUREMENT				*****	****	Red. Mon.	Mg/L		COMP24
00900 1 0	PERMIT	*****	*****		# # # # # # # # # # # # # # # # # # #	****	DAILY MX	<	0/00	1690
Effluent Gross Nickel, total recoverable	SAMPLE	***	*****	****			0.83 8	2 XX		COMP24
0 0 0 1	PERMIT	******	*****	****	*****	K K K K	DAILY MX			
010/4 1 0 Fffluent Gross	REQUIREMENT	-	*******	*****	*****	*****	200		00/000	7800
Zinc, total recoverable	SAMPLE	****				******	Rea. Mon.	,		COMP24
01094 1 0	PERMIT	*****	****	***	K		DAILY MX		7//	
Effluent Gross	SAMPLE	*****	****	*****	****	*****	40.010	2	00/,00	C 784
אותווווווווווווווווווווווווווווווווווו	MEASUREMENT		******	*****	*****	****	Red Mon.	1/6/F	Quarterly	COMIT
01104 1 0	PERMIT REQUIREMENT	***			****	*****	DAILT INA.	c	0/10	200
cadmium, total recoverable	SAMPLE	*****	*****	K K K K			1000x	X D	Quarterly	
24	PERMIT	****	*****	****	****		DAILY MX			
Effluent Gross	SAMPLE	*****	***	*****	*****	****	₹0.003	1 m	0 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	C857
	MEASUREMEN	*****	*****	*****	*****	****	Req. Mon.	7/5	Quarterly	_
01114 1 0 Effluent Gross ·	REQUIREMENT	F	-			 - /			TELEPHONE	DATE
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	VE OFFICER learth	l certify under penalty of law that this docume supervision in accordance with a system des	ocumentand all attachments in designed to assure that que seed on my inquiry of the pers	entand all affachmente were propared under my direction o signed to accure that qualified personnel property gather and my inquiry of the person or persons who managa the	ny direction o riy gather and ranga the		T			10/4/01
evaluate the financiar for the financiar the financiar fin	evelual evelual uystem uystem to the be of the pendid	et he information brothway or a property regy regy respect of my knowledge and belle is for submitting false information.	onsible for gathering the infor f, true, acourale, and comple ion, including the possibility of	mation, be information to, I am aware that there fine and imprisonment	<i>y</i>	IATURE OF PRINCIP. AUTHOR	SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT		AREA Code NUMBER	MM/DD/YYY
TYPED OR PRINTED	,									

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND jan.31. COMMENTS AND EXPLANATION OF ANY WOLATIONS (Reference all attachments here)

EPA Form 3320-1 (Rev.01/06) Previous editions may be used.

Page 1 11/21/2014

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different)

01453 DMR Mailing ZIP CODE:

Form Approved OMB No. 2040-0004

ATA No Discharge	FREQUENCY SAMPLE		91/6 CPAY	Segmon Of S	Quarterly COMP24	100	101/01 Charl	Four per Year COMP24		1880 08/01 C	Onarterly COMP24		
MAJOR (SUBR C) EFFLUENT TOXICITY DATA External Qutfall No	Šį		(+	<u>(</u>)	\dashv	_	_	· ,	
MAJOR (SUBR C) EFFLUENT TO) External Qutfall					Req. Mon.	╁	<i>\</i>	*****		0		****	
oal can	QUALITY OR CONCENTRATION	VAI		0,000	Req.	. DAIL							_
OO1-B DISCHARGE NUMBER G PERIOD MM/DD/YYYY A9/3-1/2015 C3C/ 3c/ 2c2/	QUALITY OR	VALUE	*****	,	*****		****			****		*****	
DISC DRING PE		VALUE	******		*****			00/	100 DAILY MN		8	43.5	DAILY MN
MA0100617 PERMIT NUMBER MONITC MMIDD/YYYY GS/G1/201[2021	C	- }	CINIO		*****		*****		*****	****		*****	
PERM .	MOVO	≻	VALUE		*****		*****		****	*****	- 14	*****	
		QUANTII	VALUE	****		*****	*******		*****	170		***************************************	i i i
F P 1453 T P 17453	ANT MGR			SAMPLE	MEASUNEMEN	PERMIT	KEGOINEINI	SAMPLE MEASUREMENT	PERMIT	REGUIREMEN	SAMPLE SAMPLE MEASUREMENT		PERMIT REQUIREMENT
PERMITTEE NAME/ADDRESS (MANDE PAGIN) TO NAME: LEOMINSTER W W T P LEOMINSTER, MA 01453 LEOMINSTER W W T P LOCATION: 438 MECHANIC ST LEOMINSTER, MA 01453	ATTN; ROBERT CHALIFOUX, PLANT MGR		PARAMETER	Copper, total recoverable		0111910	Effluent Gross	LC50 Static 48Hr Acute	TAA3B 1 0	Effluent Gross	Noel Statre 7Day Chronic	Ceriodaphnia	TBP3B 1 0 . Fiftuent Gross

6	<u> </u>	
17/12 2C)	MM/dol/mm	
TELEPHONE CALL	AREA Code NUMBER MM/DD/YYYY	
	MATURE OF PRINCIPAL EXECUTIVE OFFIGER OR. ARE	
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER teartify under penalty of law that this document and all stackments were prepared under my discisloned property subtractions are prepared to the property subtractions with manager appropriate the property with manager appropriate the property with manager appropriate the property of the present or prepared with manager appropriate the property of the prop	System, or hose persons directly responsible in gradiently and compiled, and water that there are stocking to be sold my knowledge and belief, this, and compiled, and water that there are stocking from the penalties for submitting false information, including the possibility of fine and imprisonment for knowing penalties. AUTHORIZED AGENT	-
NAME/TITLE PRINCIPAL EXECUTIVE OFFICER	Albert Mal Ton Oc, Tak was postered	TYPED OR PRINTED

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND jan.31. COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Page 2 11/21/2014

Test Report Certification

Permittee name:	Leominster WWTP	Permit number:	MA0100617
Client sample ID:	Effluent	Test Start Date:	9/8/21
Whole	Effluent Toxicity Test Rep	ort Certification (Permi	ttee)
supervision in accorda evaluate the information those persons directly re knowledge and belief	of law that this document and all ance with a system designed to as submitted. Based on my inquiry consible for gathering informat f, true, accurate, and complete. It mation, including the possibility of	sure that qualified personnel portion of the person or persons who resion, the information submitted am aware that there are signiful fine and imprisonment for k	manage the system, or distributions is a size of my icant penalties for
	(Date) A	Authorized Signature	
	<u> F</u>	Nober A Chall Foux Frint or Type Name and Title	Grojed Manage
	_ i	City of Leoniversity of Type the Permittee's N	ister MA
		MA01006	17
	<u>-</u> !	Print or Type the NPDES Permi	t Number
Whole Efflu	ent Toxicity Test Report (Certification (Bioassay L	aboratory)
The	results reported relate only to th	ne samples submitted as receiv	/ed
supervision in accord evaluate the informatio those persons directly	of law that this document and all lance with a system designed to a n submitted. Based on my inquiry responsible for gathering informa ef, true, accurate, and complete. ormation, including the possibility	assure that qualified personnel of the person or persons who ation, the information submitted I am aware that there are sign	properly gather and manage the system, or ed is, to the best of my ificant penalties for
Executed on:	0-4-2021 (Date)	Kimberly Kimberly Laboratory [New England Bi	Director

General Test Conditions

Permittee name:	Leominster WWTP	Permit number	:MA0100617
Client sample ID:	Effluent	Test Start Date	: 9/8/21
	Sample Collection	Information	
Effluent #1 Dates/Times:	<i></i>	eceiving Water #1 Date/Time:	9/8/21 @ 0850
Effluent #2 Dates/Times:	3/3 20/ 0	eceiving Water #2 Date/Time:	9/10/21 @ 0835
Effluent #3 Dates/Times:	9/12-13/21 @ 1306-0915 R	eceiving Water #3 Date/Time:	9/13/21 @ 0920
Were a minimum of three s	samples collected? Yes	No = *(see note below)	
Were samples used within	the first 36 hours of collection?	Yes ✓ No ☐ * (see i	note below)
* sample collection note:			
•	•		
	Test Cond	itions	
Permittee's Receiving Wat	er: Nashua River		
Dilution water: Labor	atory synthetic soft water (hardness 4	5 - 55 mg/L CaCO3)	
Control water: Receiving	ng water collected at a point immedia	tely upstream of or away from t	he discharge
Effluent concentrations te			
Was effluent salinity adjus	3(cα:	Instant Ocean sea salts to	ppt
Dechlorination procedure	s: Chlorine is measured using 4500 CL	-G DPD Colorimetric Method	
 Dechlorination was not 	t required		
The suite and further in	formation about aeration of samples	can be found attached in "samp	ole receipt chemistry"
IRC results and further in	HOI Hadon about act as to the second		
	Reference To	xicant Data	
		•	
	Ceriodaph	nia dubia	
	Date:	9/20/21	
	Toxicant:	Sodium chloride	•
	Dilution Water:	NEB CTRMH	
	Organism Source:	NEB	
	Reproduction IC25:	0.65 g/L	
	Results within range	Yes 🗸 No 🗌	

Ceriodaphnia dubia Test Results

		Ceriodaph	nia aubia i	est Result	5	
Permittee name:		Leominster V	WWTP	Pe	ermit number:	MA0100617
Client sample ID:		Effluent		Test Dates:	9/8/21	- 9/15/21
	***************************************	Test Ac	ceptability Cri	teria		·
Lab Diluent Surviv	al:	90 % Mean Lab	Diluent Reprod	uction:		ng per female
River Control Surv		90 % Mean Rive	er Control Repro	duction:	you	ng per female
Thiosulfate Contro	ol Survival:		osulfate Control			ng per female
Presence of an ast	terisk (*) ind	icates EPA criteria was no	ot met, see expl	anation in the '	'Results Discussion	n" section at the
bottom of the foll	owing page.		Test Results			
	-			D. U	D/C-: Ctotus	
;	 		Permit Limit	Test Result	Pass/Fail Status	
	Acute	48 hr LC50	≥ 100%	>100%	Pass	
	Data	48 hr NOEC		100%		
		TUa			Print Car Salies International Car	
		Chronic LC50		>100%		
		Survival C-NOEC		100%		}
		Survival C-LOEC		>100%		
		Reproduction C-NOEC		100%		1
	Chania	Reproduction C-LOEC		>100%		
	Chronic Data	Reproduction IC25		>100%		1
		Reproduction IC50		>100%		_
		Reportable C-NOEC	≥ 43.5%	100%	Pass	
		Reportable C-LOEC		>100%		4
		MATC		>100%		4
		TUc				
Presence of an ast	erisk (*) indic	ates qualified data, see expl	anation in the "Re	sults Discussion	section at the	
bottom of the follo						
			Test Variabilit	У		
Reproduction Pl	MSD:	24.5% Upper & Lov	wer EPA bounds:	: 13 - 47%	Low Withi	n bounds High
☐ PMSD excee	eds upper bo	ounds. Test results are hig	ghly variable and	d may not be se	ensitive enough to	determine
		at the permit limit conce				
		ne upper (47%) and lowe		Results are rep	oortable.	
		wer bound test variabilit				e percent
difference (RPD) betwe	en the control and each t	treatment was c	alculated and o	compared to the l	ower bound.
The RPI	D values for	all concentrations fall be ally insignificant.	low the lower bo	ound. Any diffe	rences observed i	n this test are
Some o	of the concer	ntrations that were flagge nces observed in these co	ed as statistically oncentrations wi	significant hav	ve RPD values that dered statistically	t fall below the lower significantly
☐ No stat	istically sign	ificant reductions were o	bserved in this t	test.		

NEB Issued: 9/29/21 Page 4 of 67

Ceriodaphnia dubia Test Results

Permittee name:	Leominster WWTP	PerPer	mit number:	MA0100617						
Client sample ID:	Effluent	Test Dates:	9/8/21	- 9/15/21						
	Concentration - Res	sponse Evaluation								
Survival: #12 No signifi concentration	icant effects at any test concentra ns performed very similarly to dil	ation with a flat concentr ution control.	ation-response	curve. Test						
Reproduction: #13 No signif Test concent	Reproduction: #13 No significant effects at any test concentration with a relatively flat concentration-response curve. Test concentrations performed equal to or better than the dilution control.									
The concentration - response Survival Reproduction			ion was made:							
XX	Results are reliable and rep	ortable								
	Results are anomalous (see explanation below)								
	Results are inconclusive - re	test (see explanation bel	ow)							
	Results Discussi	on (if applicable):								



January 18, 2022

U.S. Environmental Protection Agency (OES4-SMR) Water Technical Unit 5 Post Office Square – Suite 100 Boston, NA 02109-3912

To Whom It May Concern:

Attached are the Quarterly Acute and Chronic Toxicity Testing Reports for the City of Leominster Wastewater Treatment Facility, as required by the City's NPDES Permit #MA0100617.

If you should have any questions or require further information, please feel free to call.

Sincerely,

Veolia Water North America

Robert Chalifoux Project Manager

enc.

cc: MADEP - Division of Watershed Management

MADEP - Bureau of Resource Protection



New England Bioassay Inc.

Aquatic Toxicity Testing Services

77 Batson Drive Manchester, CT 06042 (860)-643-9560 www.nebio.com

CHRONIC AQUATIC TOXICITY TEST REPORT

Permitee:	Lec	minste	er WWTP			IPDES#_	MA01	00617
Report submitted to:		Mecha	nic Street					
		Leominster, MA 01453						
Sample ID:		Efflu	ent					
Test Month/Year:		ecemb	er 2021					
NEB Proj #		446	44					
								·
Test Type / Method:	Ceriodaphnia	dubia	Modified	Chror	iic Sta	atic-Ren	ewai r	resnwater
	Test Method 1	L002.0;	EPA 821-	R-02-0)13			
Effluent Sample Dates:	#1 12/14-	15/21	#2	12/16	5-17/2	1#3	12,	/19-20/21
Test Start	Date:		12/1	5/21				
		Resul	ts Summa	ary				
Your results were as fo	llows:							
Passed all permit limits								
assed an permit mixed								
		Acute	Test Res	ults				
Species	LC50		A-NOE		Pern	nit Limit	F	Pass / Fail
Ceriodaphnia dubia	>100%		100%		≥	≥ 100%		Pass
CCITOCOCPITATION		<u> </u>						
	T allore		ic Test Re		25	Permit	Limit	Pass/Fail
Species	C-NOEC		LOEC 100%		00%	≥ 43.		Pass
Ceriodaphnia dubia	100%		100%	>10	JU /6	2 43.	370	, 433
Data Qualifiers affection	ng this test:							I I I I TO TO THE
This test is considered	to be condition	nally va	ılid. See "F	Results	Discu	ission" of	n Cerio	daphnia Test
Results page for expla	nation.							
	<u></u>							

Certifications & Approvals: NH ELAP (2071), NJ DEP (CT405)

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PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) LEOMINSTER W W T P.

ADDRESS: 436 MECHANIC ST LEOMINSTER, MA 01453 NAME:

LOCATION: 436 MECHANIC ST LEOMINSTER, MA 01453 LEOMINSTER W W T P FACILITY:

ATTN: ROBERT CHALIFOUX, PLANT MGR

DISCHARGE NUMBER MM/DD/YYYY 03/31/2015 001-B MONITORING PERIOD 12/1/2021 PERMIT NUMBER MM/DD/YYYY 88/01/2013 MA0100617

01453 EFFLUENT TOXICITY DATA DMR Mailing ZIP CODE: External Outfall (SUBR C) MAJOR

NO. FREQUENCY SAMPLE EX OF ANALYSIS TYPE No Discharge [QUALITY OR CONCENTRATION 12/31/80al

		LVALIO	OLIANTITY OR LOADING	g	3		7/41/15	UNITS FA		
	1	VALUE	VALUE	UNITS	VALUE	VALUE		\\	770	1634
PAKAMETEK	SAMPLE	*****	*****	*****	****		<u>م</u> .0	MICO	_	760740
Nitrogen, ammonia total [as N]	MEASUREMENT				*****	*****	Req. Mon.		Quarterly C	
00810 1 0	PERMIT	*****	***	***		*****	Χ×	1	0/60	7 69 7
Effluent Gross	REGUINEMEN	*****	****	*****	****		60) / / / /	3	76076
Hardness, total jas CaCO3]	MEASUREMENT				*****	***	Req. Mon.	Trig/L	Quarterly C	
0000010	PERMIT	****	****			*****	ı	(100/10	770
Effluent Gross	SAMPLE	*****	****	*****	***		- 1	2	Quarterly	COMP24
	MEASUREMEN		*****	****	******	*****	Req. Mon.			
01074 1 0	PERMIT	. *******			****	*****	DAILT MIX	0	0/60	C Par
Effluent Gross	SAMPLE	*****	****	****			- 1		_	COMP24
	MEASUREMENT			*****	*****	****	Red. Mon.	- 1/fil		
01094 1 0	PERMIT	****	*****			400	DAILY MX	1	3/10	0020
Fiftuent Gross	REGUIREMENT	dependent of	****	*****	中大生中大士	2 12 15 15 15 15 15 15 15 15 15 15 15 15 15	(C)	3		7
Aluminum, total recoverable	MEASUREMENT	***				******	Red. Mon.	7/0	Quarterly	COMP24
	H	*****	*****	****	*****		DAILY MX:		1	(
01104 1 0	REQUIREMENT			*****	*****	*****	10000 P	() ()	101/00 CHAN	
Cadmium, total recoverable	SAMPLE	*****	*			4	Was Man	1	Quarterly	COMP24
	TIMBER	*****	*****	****	*****		DAILY MX			
01113 1 0 Efficient Gross	REQUIREMENT		***************************************	****	*****	*****	A CACA		00/10/01	ナダン
Lead, total recoverable	SAMPLE	****	-						Quarterly	COMP24
	PERMIT	*****	****	*****	****		DAILY MX	,	,	
01114 1 0 Efficient Gross -	REQUIREMENT							TEL	TELEPHONE	DATE
		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -	the deciment and all allachment	all allachments were prepared under my direction o	y direction o	ښم	· \			

erfly under penalty of law that this document, and all attachments were presented under my decolor or previden in accordance with a spiritud regiment of a spiritud or personal persona NAME/TITLE PRINCIPAL EXECUTIVE OFFICER (Specky

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, Jul. 31, oct 31, AND jan.31. COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

Page 1

11/21/2014

978-537-572

NUMBER

STONATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT

NATIONAL POLLUTANT DISCHARGE ELIMINATION.SYSTEM (NPUES) DISCHARGE MONITORING REPORT (DMR)

PERMITTEE NAME/ADDRESS (Include Facility Name/Location if Different) LEOMINSTER WWTP NAME:

LEOMINSTER, MA 01453 436 MECHANIC ST ADDRESS:

LEOMINSTER W W T P FACILITY:

LOCATION: 436 MECHANIC ST LEOMINSTER, MA 01453

ATTN: ROBERT CHALIFOUX, PLANT MGR

12/21/2021 DISCHARGE NUMBER 03/34/2045 MM/DD/YYYY MONITORING PERIOD 1808/1/20 PERMIT NUMBER MM/DD/YYYY -09/04/2045 MA0100617

01453 EFFLUENT TOXICITY DATA DMR Mailing ZIP CODE: (SUBR C) MAJOR

External Outfall

No Discharge 📙

SAMPLE TYPE

FREQUENCY OF ANALYSIS Four per Year 0/60 10/60 Quarterly 0/60 Quarterly 0 õχ ට UNITS \mathbf{c} % 0 % Ó 0 Req. Mon. DAILY MX QUALITY OR CONCENTRATION VALUE **** 0.01/ VALUE **** **** ***** ***** ***** 43.5 DAILY MN 100 DAILY MN VALUE 8/8/ 9 ***** ***** UNITS ***** ***** **** QUANTITY OR LOADING VALUE ***** ***** **** ***** **** VALUE ***** ***** ***** ***** **** **** SAMPLE MEASUREMENT PERMIT REQUIREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT PERMIT REQUIREMENT SAMPLE MEASUREMENT Noel Statre 7Day Chronic PARAMETER Copper, total recoverable C50 Static 48Hr Acute Effluent Gross Effluent Gross TBP3B 10 . Ceriodaphnia Ceriodaphnia TAA3B 1 0 0111910

Effluent Gross

COMP24

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COMP24

7000

SIGNATURE OF PRINCIPAL EXECUTIVE OFFICER OR AUTHORIZED AGENT pervielon in accordance with a system designed to assure that qualified personnel property gathefants, rainate the information submitted. Based on my inquiry die persons of persons who manage the facility of the section of persons dietherly responsible for gathefung the information, the information submitted assured in the best of my knowledge and belief, this, accurate, and compiles. I am aware that there are significant the best of my knowledge and belief, this, accurate, and compiles. I am aware that there are significant intilles for submitting isles information, including the possibility of fine and imprisonment for knowing mailles for submitting isles information. Challow Are portry NAME/TITLE PRINCIPAL EXECUTIVE OFFICER (200erz)

COMMENTS AND EXPLANATION OF ANY VIOLATIONS (Reference all attachments here)

TEST IN MARCh, JUNE, SEPT., DEC., REPORT BY april 30, jul. 31, oct 31, AND Jan.31.

DATE

TELEPHONE

क्राहरअस

NUMBER

AREA Code

Test Report Certification

	Leominster WWTP	Permit number:	MA0100617
Permittee name:	Effluent	Test Start Date:	12/15/21
Client sample ID:			
Whole	Effluent Toxicity Test Rep	oort Certification (Permi	ttee)
I certify under penalty supervision in accord evaluate the information those persons directly knowledge and belisubmitting false info	of law that this document and all ance with a system designed to an submitted. Based on my inquiry responsible for gathering informate, true, accurate, and complete. ormation, including the possibility (Date)	I attachments were prepared unssure that qualified personnel professor of the person or persons who ation, the information submitte. I am aware that there are significant of fine and imprisonment for law and the print or Type Name and Title. Print or Type the Permittee's MA0100	nder my direction or properly gather and manage the system, or d is, to the best of my ficant penalties for knowing violations. Coyed Manage
		Print or Type the NPDES Perm	nit Number
Whole Eff	luent Toxicity Test Report	Certification (Bioassay	Laboratory)
Vynole En	ne results reported relate only to	the samples submitted as rece	ived
I certify under penal supervision in acco evaluate the informat those persons direct	ty of law that this document and rdance with a system designed to ion submitted. Based on my inquely responsible for gathering information, including the possibilation including the possibilation.	all attachments were prepared assure that qualified personne iry of the person or persons wh mation, the information submit	under my direction or of properly gather and o manage the system, or ted is, to the best of my nificant penalties for
Executed on:	1/13/22 (Date)	Kimbon Kimberly Laboratory New England	

General Test Conditions

ermittee name:	Leominster WWTP	Permit number:	
ient sample ID:	Effluent	Test Start Date:	12/15/21
	Sample Collection I	nformation	
fluent #1 Dates/Times: fluent #2 Dates/Times: fluent #3 Dates/Times: fere a minimum of three fere samples used within sample collection note:	12/19-20/21 @ 0931-0844 Re 12/19-20/21 @ 1315-0930 Re	eceiving Water #1 Date/Time: eceiving Water #2 Date/Time: eceiving Water #3 Date/Time: No	12/15/21 @ 0848 12/17/21 @ 0825 12/20/21 @ 0935 oote below)
sample collection note.			
	Test Cond	tions	
 Dechlorination was no 	es: Chlorine is measured using 4500 CL		ole receipt chemistry"
	Reference To	xicant Data	
	Ceriodaph	nia dubia	
	Date: Toxicant: Dilution Water: Organism Source:	12/1/21 Sodium chloride NEB CTRMH NEB	
	Reproduction IC25:	0.94 g/L	
	Results within range	Yes 🗸 No 🗌	

Ceriodaphnia dubia Test Results

Permittee name: Leominster WWTF						MA0100617
Client sample ID	Tost Dates: 12/15/21 - 12/23/2					
		Test Ac	ceptability Cri	teria		
Lab Diluent Surviv	ıal:	70 % * Mean Lab	Diluent Reprod	uction:	16.3youn	g per female
River Control Surv		90 % Mean Rive	er Control Repro	duction:	23.7youn	g per female
Thioculfata Contr	ol Survival:	N/A % Mean Thic	osulfate Control	Reproduction:		g per female
Presence of an as	sterisk (*) ind	icates EPA criteria was no	ot met, see expl	anation in the "	Results Discussion	" section at the
bottom of the fol						
			Test Results			
			Permit Limit	Test Result	Pass/Fail Status	
	A	48 hr LC50	≥ 100%	>100%	Pass	
	Acute Data	48 hr NOEC		100%	4	
		TUa				
	Chronic LC50			>100%		
		Survival C-NOEC		100%		
Chronic Data	Survival C-LOEC		>100%			
	Reproduction C-NOEC		100%			
	Reproduction C-LOEC		>100%			
		Reproduction IC25		>100%		j
	5414	Reproduction IC50		>100%		
	1	Reportable C-NOEC	≥ 43.5%	100%	Pass	
ı		Reportable C-LOEC		>100%		
	MATC			>100%		
		TUc				ļ
Presence of an as bottom of the fol		ates qualified data, see expl			section at the	
			Test Variabilit]Low ☑Within	bounds 🔲 Hig
Reproduction F			wer EPA bounds			
		ounds. Test results are hi		d may not be s	ensitive enough to	determine
the presen	ice of toxicity	at the permit limit conce	entration (PLC)			
☑ The PMSD	falls within t	he upper (47%) and lowe	r (13%) bounds.	. Results are rep	oortable.	
PMSD falls	s below the lo	ower bound test variabilit	y criterion. The	test is very sen	sitive. The relative	percent
difference	(RPD) betwe	en the control and each	treatment was o	calculated and	compared to the lo	wer bound.
The Rf	D values for	all concentrations fall be cally insignificant.	low the lower b	ound. Any diffe	erences observed in	this test are
bound	of the conce d. Any differe ased from the	ntrations that were flagge nces observed in these co e control.	ed as statisticall oncentrations w	y significant ha Ill not be consi	ve RPD values that dered statistically s	fall below the low ignificantly
∏ No sta	atistically sign	nificant reductions were o	bserved in this	test.		

Ceriodaphnia dubia Test Results

Permittee name:		Leominster_WWT	`P	Pei	rmit number:	MA0100617
Client sample ID:		Effluent	Test	: Dates: _	12/15/21	- 12/23/21
				· · · · · · · · · · · · · · · · · · ·		
		Concentration - F	Response Evalu	ation		
Survival: #12 cond	No significan centrations p	t effects at any test concer erformed very similarly to	ntration with a fla dilution control.	at concent	ration-response	curve. Test
Reproduction: #12 Test	! No significar t concentratio	it effects at any test conce ons performed both above	ntration with a re and below (but s	elatively fla similarly to	at concentration b) the dilution co	-response curve. introl.
	production	ationship was reviewed an		etermina	tion was made:	
X	<u> </u>	Results are reliable and re Results are anomalous	(see explanatio	n below)		
		Results are inconclusive -			low)	
		Results Discus	ssion (if applica	ble):		
<u> </u>						

Please note that survival in the laboratory water diluent was 70% at test completion which was below the EPA acceptability survival criterion of ≥ 80%. Survival of organisms in all effluent concentrations mixed with the laboratory water showed no negative effects with ≥ 80% survival at test completion. Additionally, reproduction in all effluent concentrations was significantly higher than in the laboratory water control. NEB statistically compared survival and reproduction in the test concentrations with survival and reproduction in the receiving water control (Nashua River) which met all EPA acceptability criteria. No reduction in survival or reproduction was measured in any effluent concentration (6.25%, 12.5%, 25%, 43.5%, 50%, and 100%) when compared with the receiving water control. Based on the performance of the organisms in the receiving water control and in all the effluent concentrations, especially the high survival and reproduction numbers in the 43.5%, 50%, and 100% effluent concentrations, we are considering the *Ceriodaphnia* test to be conditionally valid and are reporting the C-NOEC as 100% effluent.

NEB Issued: 1/13/22 Page 5 of 56

ATTACHMENT E LOCAL LIMITS REASSESMENT SEPTEMBER 19, 2014



September 19, 2014

Mr. Jay Pimpare
EPA Region 1 Pretreatment Coordinator
5 Post Office Square, Suite 100
Boston, MA 02109

Re:

City of Leominster Wastewater Treatment Facility

NPDES Permit No. MA0100617 Local Limits Reassessment

Dear Mr. Pimpare:

In accordance with 40 CFR 122.21 (j) (4), please find enclosed a reassessment of the current local limits for the City of Leominster's Wastewater Treatment Facility. Plant data used in this evaluation was for the 24-month period of July 1, 2012 to June 30, 2014.

To evaluate how the plant performs with respect to influent and effluent of pollutants, refer to Item V. in the attached technical data. Cadmium, copper, and zinc were detected in the influent of the plant. The average and maximum levels of all the metals tested in the plant influent are less than the maximum allowable industrial headwork loading (MAIHL) for each pollutant with the exception of copper. The governing inhibitory threshold used to establish the MAIHL for copper was the NPDES permit limit. The WWTF has not experienced any inhibition of secondary or tertiary treatment and the facility has consistently met the ammonia limitations of the NPDES permit.

Concerning water quality, refer to Item VI. to compare effluent data to water quality criteria. Water quality criteria were established to protect aquatic life. The NPDES permit issued to Leominster requires quarterly bioassay toxicity testing. The bioassay test measures whether the wastewater effluent is toxic to aquatic life. The advantage of biological testing is to measure the effects of complex discharges of known and unknown constituents to determine the bioavailability of pollutants after discharge and to address pollutants which are inadequately analyzed through other means. Over the past 24-month period, the Leominster WWTF met or exceeded the acute and chronic toxicity limits specified in the NPDES permit. Although copper is present in the effluent, the levels do not appear to be exhibiting toxic effects.

Mr. Jay Pimpare EPA – Region One September 19, 2014 Page two

Regarding sludge quality, the liquid sludge was trucked daily to the East Fitchburg WWTP where it was incinerated. Item VIII compares Leominster's biosolids data to the sludge metals limits in effect at the East Fitchburg Wastewater Facility. The Leominster biosolids metals are well within the limitations. Beginning in August of 2014 all sludge is being disposed of at the Upper Blackstone WPAD by incineration.

In consideration of worker health and safety, there have been no reported incidents that have been a concern to worker health and safety and no reports of problems within the collection system.

The attached plant data shows that levels of copper and zinc entering the plant sometimes exceed allowable industrial headworks loadings. The effluent data shows copper levels that are occasionally exceeding the NPDES permit limits.

Based upon the inspections, surveillance and monitoring procedures at the industries, violations of local limits are neither frequent nor significant. In assessing the wastewater treatment plant performance, the plant effluent exhibits no toxic effects on the receiving stream and shows no inhibition of secondary or tertiary treatment processes. We believe the sludge is well within the metals limitations for incineration at the Upper Blackstone WPAD facility and worker health and safety does not appear to be compromised. Based upon all these facts, it is our determination that the local limits that are in place are sufficient to regulate the three SIUs discharging to the Leominster facility. At this time, there is not a need to revise current local limits.

If you should have any questions or require additional information please feel free to call me at (978) 537-5720.

Sincerely,

Veolia Water North America

Robert Chalifoux Project Manager

Cc: Christopher Knuth, City of Leominster Roger Brooks, City of Leominster DEP, Central Region Office

REASSESSMENT OF TECHNICALLY BASED LOCAL LIMITS (TBLLs)

POTW Name & Address: City of Leominster Wastewater Treatment Plant
436 Mechanic Street, Leominster, MA 01453

NPDES PERMIT #: MA0100617

Date EPA approved current TBLLs: <u>10/20/93</u>

Date EPA approved current Sewer Use Ordinance: 09/93

TBLL reassessment prepared by Robert Chalifoux, VWNA Leominster

ITEM I.

In Column (1) list the conditions that existed when your current TBLLs were calculated. In Column (2), list current conditions or expected conditions at your POTW.

expected conditions	Column (1) EXISTING TBLLs	Column (2) PRESENT CONDITIONS
POTW Flow (MGD) SIU Flow (MGD) Dilution Ratio or	6.10 0.61 22.88 MGD	5.70 0.040 21.16 MGD
7010 (from NPDES Permit) Safety Factor Biosolids Disposal Method(s)	10% Incineration	N/A Incineration

ITEM II.

EXISTING TBLLs

POLLUTANT	NUMERICAL LIMIT (mg/l)	POLLUTANT	NUMERICAL LIMIT (mg/l)
arsenic beryllium cadmium chromium (T) copper cyanide lead mercury	0.87 0.23 0.03 1.10 0.97 0.63 1.30 0.0007	nickel selenium silver thallium zinc	2.52 1.50 0.11 1.71 0.72

ITEM III.

Note how your existing TBLLs, listed in Item II., are allocated to your Significant Industrial Users (SIUs), i.e. uniform concentration, contributory flow, mass proportioning, other. Please specify by circling.

Existing TBLLs were allocated by the uniform concentration method.

ITEM IV.

Has your POTW experienced any upsets, inhibition, interference or pass-through from industrial sources since your existing TBLLs were calculated?

The POTW has experienced no upsets, inhibitions, interference or pass-through from industrial sources since the existing TBLLs were calculated.

Has your POTW violated any of its NPDES permit limits and/or toxicity test requirements?

The POTW has periodically violated its NPDES copper limit. The City was reissued the NPDES permit in June 2014. The new permit increased the effluent copper limit from 20 ug/l interim (monthly average) to 32.3 ug/l (monthly average). The daily maximum limit for copper was increased from 20 ug/l to 50.3 ug/l. The increase in the effluent limit should significantly reduce the amount of permit exceedances for copper.

ITEM V.

Using current POTW influent sampling data fill in Column (1). In Column (2), list your Maximum Allowable Industrial Headwork Loading (MAIHL) values used to derive your TBLLs listed in Item II. In addition, please note the Environmental Criteria for which each MAIHL value was established; i.e. water quality, sludge, NPDES etc.

WYIHT Agine M	as establica			
p-11utant	Colum In <u>fluent Da</u>	<u>ta Analyses</u>	Column (2 MAIHL Values	2) <u>Criteria</u>
Pollutant	Maximum (lb/day)	Average (lb/day)	(lb/day)	
Arsenic Cadmium Chromium Copper Cyanide Lead Mercury Nickel Silver Zinc	0.25 0.05 0.17 10.6 0.25 0.12 0.0025 0.12 0.25	0.25 0.04 0.17 4.00 0.25 0.12 0.0025 0.12 0.25 2.73	4.44 0.15 5.60 4.92 3.22 6.59 0.0033 12.83 0.54 5.96	Sec. Inh. WQC WQC NPDES WQC Sec. Inh. WQC Nitr. Inh. WQC Nitr. Inh.

ITEM VI.

Using current POTW effluent sampling data, fill in Column (1). In Column (2A) list what the Water Quality Standards (Gold Book Criteria) were at the time your existing TBLLs were developed. List in Column (2B) current Water Quality Standards or 'Chronic Gold Book' values for each pollutant multiplied by the dilution ratio used in your new/reissued NPDES permit.

Pollutant	Column Effluent Data Maximum (ug/l)	mn (1) a Analyses Average (ug/l)	Column (2A) Water Quality Cri From TBLLs ¹ (ug/l)	(2B)
Arsenic Cadmium ³ Chromium ⁴ Copper ³ Cyanide Lead ³ Mercury Nickel ³ Silver ³ Zinc ³	11 <1	8 <0.2 <7 13.2 <10 <0.5 <0.1 2.1 <10 35.3	190 0.66 11 22.2 ⁵ 5.2 34 .012 87 1.2	150 0.40 <u>0.17</u> 11 12.4 5.2 2.70 <u>1.45</u> 0.77 73.2 <u>30.97</u> 1.81 ⁶ 166 <u>71.08</u>

NOTES

 $^{1}\mathrm{Hardness}$ value used at the time that the TBLLs were calculatedwas 50 mg/l CaCO3

²These figures were determined by multiplying the Chronic Water Quality Criteria (CCC)(as compiled by the EPA and published in the document entitled "National Recommended Water Quality"

Criteria: 2002," EPA-822-R-02-047, November, 2002) by the Dilution ratio of 3.42 as specified in the new/reissued NPDES permit.

**Reference: Draft NPDES Permit No. MA0100617, March 2013, Page 22 of 34

Metal	Total Recoverable Cr Acute Criteria (CMC)(ug/l)	<u>iteria</u> Chronic Criteria (CCC)(ug/l)
Cadmium	1.14	0.17
Lead	37.26	1.45
Nickel	278.57	30.97
Zinc	71.08	71.08

 $^3 These metals are hardness dependent. WQC adjusted at hardness of 35 mg/l as CaCO3. The Permit Fact Sheet for the new/reissued NPDES permit reports in-stream test data from DEP, hardness = 35 mg/l as CaCO3.$

 $^4\mathrm{The}$ existing TBLLs used the chronic water quality criteria for

hexavalent chromium. To maintain consistency, the value for hexavalent chromium was used in calculating today's chronic water quality criteria.

5At the time that the existing TBLLs were calculated, the proposed NPDES permit limit for copper of 22.2 ug/l was used to calculate the allowable influent loading. An allowable influent load based on Water Quality Criteria for copper was not calculated. Current NPDES Permit limits for copper are 32.3 ug/l monthly average and 50.3 daily maximum.

 $^6\mathrm{No}$ Chronic Water Quality Criteria is listed for silver so the Acute value is used in the calculation instead.

ITEM VII.

In Column (1), identify all pollutants limited in your new/reissued NPDES permit. In Column (2), identify all pollutants that were limited in your old/expired NPDES permit.

Column (1)
NEW PERMIT Limitations

<u> 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1</u>			3.5 -1m
Pollutants	Average Monthly (ug/l)	Average Weekly (ug/l)	Maximum Daily <u>(ug/l)</u>
BOD ₅ (11/1 - 4/30) CBOD ₅ (5/1 - 10/31) TSS (11/1 - 4/30) TSS (5/1 - 10/31) Phosphorus (4/1 - 10/31) Phosphorus (11/1-3/31) NH ₃ N (6/1 - 10/31) Total Chlorine Residual Copper	30,000 15,000 30,000 20,000 200 1,000 1,300 25.0 32.3	45,000 15,000 45,000 20,000	2,000 44.0 50.3

Column (2) PREVIOUS PERMIT Limitations

P <u>ollutants</u>	Average	Average	Maximum
	Monthly	Weekly	Daily
	(ug/l)	<u>(ug/l)</u>	<u>(ug/l)</u>
BOD ₅ (11/1 - 4/30) CBOD ₅ (5/1 - 10/31) TSS (11/1 - 4/30) TSS(5/1 - 10/31) Phosphorus (4/1 - 10/31) Phosphorus (11/1 - 3/31) NH ₃ N (6/1 - 10/31) Total Chlorine Residual Copper Interim Copper	30,000 15,000 30,000 20,000 200 1,000 1,300 26.0 12.1 20.0	45,000 15,000 45,000 20,000	47.0 17.5 20.0

ITEM VIII.

Using current POTW biosolids data, fill in Column (1). In Column (2A), list the biosolids criteria that was used at the time your existing TBLLs were calculated. If your POTW is planning on managing its biosolids differently, list in Column (2B) what your new biosolids criteria would be and method of disposal.

new blosoli	ds ciroria ma	Column	
Pollutant	Column (1) Biosolids Data Analyses Average (mg/kg)	(2A) Biosolids Cr: *From TBLLs (mg/kg)	(2B) iteria New (mg/kg)
Arsenic Cadmium Chromium Copper Cyanide Lead Mercury Nickel Silver Zinc Molybdenum Selenium Beryllium Antimony	<174 <5.7 <55	301.6 212.6 18.000 8.459 38.000 	
Thallium	<55	- * '	J thoma WATA

*At the time that the existing TBLLs were calculated there were only proposed federal regulations applying to sewage sludge incineration. The regulations that would set concentration based limits of certain metals in the sludge before incineration were only in draft form; therefore biosolids criteria were not developed.

The Leominster WWTP disposed of their biosolids by trucking the liquid sludge daily to the East Fitchburg WWTP, where it was incinerated. At this time, Column 2A denotes the metals limited in the sludge before incineration as specified in the NPDES permit the sludge to the East Fitchburg WWTP. (NPDES Permit No. MA0100986)

As of August 2014 the Leominster WWTP is now disposing of all the sludge generated at the Leominster facility at the Upper Blackstone WPAD were it is dewatered and incinerated.

The daily concentrations in the sewage sludge fed to the Upper Blackstone WPAD incinerator shall not exceed the limits specified below in dry weight basis.

Beryllium	10 grams per 24 hour period
Mercury	3200 grams per 24 hour period
	Maximum Daily
Arsenic	$1.2 \times 10^4 \text{ mg/kg}$
Cadmium	$3.9 \times 10^5 \text{ mg/kg}$
Chromium	$1.0 \times 10^6 \text{ mg/kg}$
Lead .	$1.4 \times 10^5 \text{ mg/kg}$
Nickel	$1.0 \times 10^6 \text{ mg/kg}$